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ABSTRACT

Curriculum reform in vocational education and training (VET) in Central and Eastern Europe was examined through case studies of VET in 10 countries: Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, and Slovenia. Special attention was paid to the following: each country's VET system; curriculum content and goals; curriculum design; policy context; available resources; school autonomy; national standards; qualifications and youth unemployment; adult education/lifelong learning; transition from school to work; relationship between general education and VET; labor processes and organization of VET; translation of labor market needs into curricula; student and teacher perspectives; student practice in workshops; and learning facilities in schools and companies. In all 10 countries studied, VET structures and processes were being reviewed, and reform and pilot projects featuring curricula focused on independent/self-directed learning and problem solving and development of key competencies required to work with new technologies were in progress. In most of the countries, labor market analysis methods had yet to be adopted and the connection between learning and work was often reduced to irrelevant theory or unreflective "doing." (An appendix constituting approximately 50% of this document contains summaries of the case studies.) (MN)

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Integration of work and learning

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REPORT

A Cross Country Analysis of Curricular Reform in Vocational Education and Training in Central and Eastern Europe

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European Training Foundation

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A great deal of additional information on the European Union is available on the Internet. It can be accessed through the Europa server (http://europa.eu.int).

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A Cross Country Analysis of Curricular Reform in Vocational Education and Training in Central and Eastern Europe

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for the
European Training Foundation
December 1998

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1. Introduction

This Cross Country Report has been commissioned by the European Training Foundation. The brief for the report was to identify issues important for a more far reaching evaluation and to outline responses to the question 'what next?'.

The text as a whole depends on ten individual Central and Eastern European country case studies. They derive from brief (2 day) evaluation visits to each country and the analysis of a detailed standardised questionnaire prepared by our colleagues at the Foundation and filled out by the staff of local project management units (PMUs). These studies are available with this text in short summaries. The summaries have the common headings of *findings; the vocational education and training system; curriculum content and goals; designing the curricula; the challenge*. The recommendations, as well as the text, are drawn from the evidence of the case studies.

The analysis and the conclusions derive from two major perspectives which form the organising basis for the main sections:

- the individual and pedagogic perspective;
- the policy and strategy perspective.

There are five sections: this *introduction;* an examination of *the challenge* facing the partner countries; a definition of what we mean by *curriculum* ; reviews, from the EU Member States which provide *frameworks for the evaluation of progress* for the two perspectives above of the main issues which have preoccupied the 10 Central and Eastern European countries, the curriculum perspective, in particular, is illustrated by case examples; consequently a recommendations section concentrating on '*what next?*' For those whose time is short the latter is self-contained.

Our conclusions are, perforce, illuminative rather than definitive. Hopefully they provide a framework for further reflection and insights into the creation of present and future actions of the Foundation.

We are very grateful for the help and support we have received from our colleagues in the Central and Eastern European countries concerned and in the Vocational Education and Training Department of the European Training Foundation who assisted the construction of the case studies with objectivity and equanimity.[1]

We would like to thank the management and interested staff of the Foundation for their help and support and Bernhard Buck for moderating the contracting process and making substantial contributions to the text.

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2. The Challenge

All the evidence indicates that for the transition period in the process of economic and social transformation a mix of education, labour market and social policy measures have to be developed in conjunction in order to cope with the challenge of combining short and medium term perspectives. The exact balance among these policy measures is a matter for political negotiation and compromise among the main political and social stakeholders. Nevertheless, it is clear that more coherence has to be sought among the individual policy initiatives.

Modernisation of the curriculum model for vocational education and training, as described below and as such, cannot solve the education and labour market problems of the transition period. However it may, under certain conditions, be a necessary if not sufficient step towards installing a sound vocational education and training system for the mid- and long-term.

The challenge is to make vocational education and training sufficiently responsive during the transition situation, and supportive of the transformation being undertaken in the economy. Furthermore, it is important to set up a vocational training system that can be built upon for the future (and able to deal with EU competition, technological and organisational changes, and lifelong learning).

Labour market transition conditions do not easily provide positive indications for future developments but rather create an ongoing and unpredictable restructuring of the employment system. Consequently external benchmarks will have to be used for modernising and restructuring vocational education and training. These can and have been taken from the review of major developments in vocational training systems in the EU and OECD countries (section 4) where there is a general consensus that national vocational training systems will have to increasingly find answers to similar challenges arising from parallel or more advanced developments on the labour market.

One of the main challenges that vocational training systems world-wide are trying to cope with is the increased uncertainty of labour market developments (both quantitatively and qualitatively) resulting from a continuous change in the mix of services and products. Furthermore, production methods of firms are modified in response to changes in markets. The increasing flexibility introduced in work organisation makes it difficult to forecast qualification needs exactly and in detail.

Vocational training systems in EU and OECD countries have tried to respond either by introducing greater flexibility in the provision of education and training, by improving pathways in the overall educational system as indicated in section 4, or by developing infrastructures for continuous communication between representatives of education and social partners. Within the *'life long learning'* concept (that has been accepted by all OECD ministries of education) attention is also being given to improving foundation learning in basic education and for recognition of other ways of learning besides traditional schools.

All these developments have also had an impact on the curriculum philosophy. Since the 1970s there was an increased emphasis on active learning and applied knowledge to replace traditional passive and encyclopaedic learning, on the integration of academic and vocational subjects, and theory and practice. Later, in the 1980s, the development of core competencies and key skills (under different names) was promoted, such as the ability to communicate, work in groups, and learn independently. However, countries largely depending on their educational structures, have different opinions as to whether such core competencies should be part of the curriculum of general education (including elementary school) or of vocational education. This shift in curriculum philosophy remained unnoticed, or at least not implemented, in most partner countries until the early 1990s and in fact became one of the first objectives of their curricular reforms.

3. What do we mean by 'Curriculum'?

In a text concerned with an analysis of curricular reform it is not unreasonable to define what we mean by 'the curriculum'.

In this report 'curriculum' is perceived as a balanced relation between the potential and interests of individuals and the requirements of society. From the individual point of view 'it' can be seen as the totality of measures, interactions and experiences within an organised learning process. However, individuals can make up their curricula only within patterns laid down by organised bodies and social institutions within society. These institutional frameworks are anchored in the specific social system of a society. They offer opportunities to the individual who in turn is constrained by requirements and standards to become a 'responsible' member of society, in whatever way this is defined. The educational field has its own bodies and institutions to develop a framework to respond to the temporary and long term needs of society as well as to the wishes of the individual to promote his/her personal development. In the field of education and training this frame is what is normally understood as 'curriculum' - and the main actions, actors and institutions involved in the development of a curriculum are part of 'institution building' involving developing 'institutional homes' for key functions and activities. In our analysis we recognise the interdependence among changes in society and changes in the institutional framework as the organisational context of curriculum design.

Inside this organisational context specialised teaching content and learning processes need to be described. The content and process of vocational education have to be seen as a special case, dominated by demand from the labour market, the labour process and individual competencies, knowledge and behaviour. The 'labour market' expects productive individuals as an output.

A traditional understanding of teaching and learning in vocational education and training results in traditional forms of curricula with a closed system of instructional courses complemented by a systematic organisation of contents in subject form. This organisation of content fits a traditional teacher dominated process mostly described in a syllabus with learning goals, teaching media, and with timetables and tests to optimise the teaching process. To learn in this traditional 'world' gets more and more difficült. Conversely 'modern' vocational education and training as exemplified in the curriculum philosophy of the Phare vocational training programmes is intended to facilitate the acquisition of useful individual competencies, knowledge and behaviour related to a society which is (at least notionally) integrated in its concepts of labour, technology and the market. Curricula with these goals focus on specific individual learning processes.

4. A framework of issues for East and West: developments in European curriculum design processes and their policy context

In this section we trace those convergent issues which have preoccupied the EU Member States for the past two decades and which provide the framework of reference for evaluating outcomes from the Phare vocational training programmes as well as the principal values which determined their original terms of reference.

The analysis is classified into three main sections. Firstly, an *overview* then the *policy and strategy* context, finally, *curriculum content and process*. The presentation is in this order since, despite the fact that this text is concerned with curricular reform, the latter occurs in a transformation and policy context. Our partner state clients are continually reminding us of this fact. Indeed one of the problems of the implementation of the Phare vocational training programmes in the ten countries reviewed is that similar curricular philosophies were applied during the same time period to entirely different transformation circumstances.

The two evaluative sections juxtapose the EU Member State perspectives with those from the partner states. The analysis carries broad as well as detailed messages. Among those broad messages are:

- that two to three year projects occupy only a small time span in the process of reform, even in Western countries and the terminating Phare programmes are leaving behind a great deal of unfinished business;
- that, as above but worth repeating, vocational training curricular reforms of a similar kind have been undertaken in the same time period but in very different transformation and economic circumstances;
- that much of the analysis deals with the consequent lack of links between demand and supply in as yet undeveloped market economies;
- that the underpinning philosophies of the Phare curricular reforms, contained in their terms of reference, have been transferred from West to East without sufficient consideration of the transformation contexts;
- that considerable development has taken place which requires renewed support and underpinning if pilot initiatives are not to be lost at the systemic level.

4.1 *Overview*

Education and training systems in most Western European countries have been undergoing review and change during the last two decades. Change is driven largely by the transformations taking place in the work situation and the consequences on employment and work patterns, technology and production processes.

Underpinning the reform of qualification structures is change in the manufacturing process which in contemporary OECD rhetoric needs a flexible workforce, capable of being trained in the new production methods and techniques. Traditional apprenticeship tended to train a craft worker in skills for a working life, probably in a specific industry or trade. Industry and services today need higher levels of occupational preparation encompassing the knowledge *and behaviour necessary for continuous retraining not only through training courses but also through individual learning from the labour process.*

Increased importance is placed on core skills: communication, application of number, information technology and problem solving.

A second consequence is the increased presence and use of information technology within production processes. This changes many job roles and work tasks and leads to changes in employment patterns, declining numbers employed in direct manufacturing and increased numbers in service sectors. Recently the service sector has also undergone employment restructuring. Along with this there is an increase in demand for workers with technical competencies. However, experience so far shows that a considerable amount of people with relatively low levels of skills will still be needed by employment systems. Paradoxically, skills shortages co-existent with high levels of unemployment are not unusual.

In some European regions economic and technological development is limited as a result of missing qualifications.

The consequences for education and training systems are:

- the need for far higher participation and attainment rates in order to ensure that larger portions of the workforce hold recognised vocational qualifications;
- the need to ensure that vocational education training processes are relevant to the needs of industry and commerce, now and in the future;
- the need to develop systems which allow for and build in continuing education to meet changing skill and technological requirements.

Europe wide, while the problems faced tend to be common, solutions may be very different and reflect social, cultural and political differences. Nevertheless, across these differences, certain themes recur: the development of progression routes; opening up ways of accrediting prior learning and experience; developing industry education partnerships etc.

Common issues reflect the general aims and objectives of different vocational education and training systems:

- reforming mainstream qualifications so that they correspond more closely to the needs of labour market integration;
- developing suitable provision to deal with the problems of low achievers and to reduce the rate of young people leaving school with no meaningful qualifications;

- experimenting with different forms of provision and taking a critical look at courses on offer, access, qualifications, and even the organising principles of the curriculum;
- opening up access to qualifications by building progression routes horizontally and vertically through the education and training systems, creating bridging routes and equivalencies as well as attempting to reduce unnecessary barriers;
- in the Central and Eastern European countries, moving towards vocational education and training systems appropriate to a market economy within a transformation context.

The key issues in this overview are analysed in more detail in the two sections below.

4.2 The policy and strategy perspective

4.2.1 Diminishing resources

During the 1980s and early 1990s education and training systems functioned in a context of diminishing resources (reduced budgets, rising numbers of students, lower employer investment, etc.). Coping with these changes has led systems to rationalise in a number of ways. For example, retrospectively, the introduction of performance indicators is justified in terms of 'quality control' but early performance indicators were 'quantity' dominated and centred on lowering unit costs. The very terminology used above indicated a new language entering education, that of 'management' and particularly in the English speaking world, 'marketing'.

Education systems have been progressively driven towards 'efficiency and effectiveness' criteria. As governments have attempted to shift the burden of funding towards regions (decentralisation) and employers (education/employer links, alternance, etc.) funding mechanisms have become inextricably linked with broader policies.

For Central and Eastern European countries, while having to work with crisis-ridden education budgets that are barely sufficient for teachers' salaries, the relationship between and among these issues is often only implicit. The terminology and the ideologies need to become unwrapped before terms such as *local responsiveness, employer relations, quality criteria, standards* are unleashed upon unsuspecting ministries of education and labour.

Yet, while much of the ongoing reform in vocational education and training is financed from external assistance programmes or loans, sustainability of education reforms will, in the mid-term, require both a rationalisation of educational spending and the search for complementary sources of funding. In so far as the latter will involve social partners' contributions, the financing issue may well trigger off a subsequent improvement in both the relevance and quality of vocational education.

4.2.2 The changing location of decision-making

Decentralisation together with '*deconcentration*', in say Spain, France and Italy, has meant more responsibility transferred to regional level, with increased opportunity for local initiatives. New vocational qualifications developed and accredited by the social partners have, over recent years, changed the shape and functioning of the system while raising a series of interesting problems and issues around the relations among the different actors in the system. In some cases (for example the

UK, Denmark and the Netherlands with regional colleges) essential decision-making has been brought down to the institution/school level. But with the latter come all the constraints of managing diminishing resources and teaching on lower unit costs.

As one of the reasons for decentralisation has been to increase the responsiveness of vocational education to local and regional labour market developments, educational support institutions (research and development, in-service teacher training, innovation of curriculum and teaching aids etc.) have become more decentralised in many countries. In some countries, teachers in (larger) school organisations have become responsible themselves for continuous innovation and development. They can call upon external specialised support for doing so but it is also assumed that such school-based innovations become and remain available for other schools in the system at large. As a result, networking between schools has developed in some countries. In others, however, competition among schools has increased.

In most of Central and Eastern European countries, a continuous tension has remained between a very centralised decision making structure (often divided among various ministries and without any social partner involvement) characterised by traditional input-oriented control mechanisms, on the one hand, and adaptation and innovation activities by individual schools, on the other. This tension has also been felt by the Phare vocational training reform programmes, which were all based on experiments in a limited number of pilot schools. In the absence of professional vocational training support institutions and mechanisms to validate and recognise school-based experiments, the experience from the pilot schools could often not be disseminated to other schools or the system at large.

4.2.3 *School autonomy and national standards*

In many countries the attempt to bring vocational education and training closer to labour markets has been an additional reason for education authorities to grant more autonomy to schools both in terms of letting them decide on (parts of) the curricula in relation to local conditions and in terms of allowing greater freedom in organising the learning process. This has been accompanied by introducing a shift from traditional 'input control' (on curriculum contents, textbooks and timetables) towards 'output' (or competence based) control.

Part of this development has also been the establishment of national qualification standards, often based on occupational standards elaborated with the assistance of the social partners. While English speaking countries have tended to focus almost completely on competence based standards, other countries - and most of the continental European ones - tend to combine an output-oriented approach with a degree of central control over inputs (such as framework curricula, timetables and study loads) and the learning process (through definition of teacher qualifications and guidelines).

In general, as OECD studies have argued, national qualification standards serve the *transferability, visibility and portability* of certificates and make these recognisable within the educational system, on the labour market and for individual employers and workers alike. By doing so, national standards offer not only a powerful quality control mechanism for relatively autonomous education and training institutions (be they state or private). They also provide important incentives for students, workers and employers to invest in the development of qualifications.

In most partner countries decentralisation, at least in curriculum development (except perhaps from Hungary and Slovenia), has occurred per force as national ministries have been unable or unwilling to initiate national curriculum reform programmes. Individual schools have had to respond on their own simply in order to survive. In general, such schools, in the absence of signals from enterprises, have initially largely relied on educational aspirations of students. This has led to a relatively quick coverage of new qualifications demanded by the labour market, followed by an overproduction of such qualifications, and has also often resulted in uncontrolled and divergent quality structures. Schools have hardly been able to rely on external professional support institutions.

Only recently, a number of Central and Eastern European countries have embarked upon the development of the national institutions and mechanisms that would enable them to leave continuous innovation to schools. This work, however, appears to be extremely complicated. It involves the reform of traditional vocational and occupational classification systems, the development of a system of national standards and qualifications, and of external assessment and examination procedures, for which mostly neither the necessary social partner involvement, nor sufficient professional research and development capacity is available. Additional pressure is coming from the need to establish transparency of qualifications with EU Member States.

4.2.4 *Qualifications and youth unemployment*

In all European countries a certain proportion of the age group leaves general education or the vocational training system either with nothing or without a qualification which allows them to find employment. In the EU countries the problem became particularly acute in the early 1980s when youth unemployment rose. In a flourishing economy, school leavers with no qualifications found employment easily and could be rapidly absorbed into the labour market, albeit in low paid, unskilled work. As openings became fewer and the number of applicants for each opening rose, employers were able to recruit at higher levels. This has contributed to increased and longer periods of unemployment among lower qualified youth. Rapid technological change further lowered the chance of finding employment and so unqualified young people would gradually be pushed towards the margins of the active population.

As employment and training measures failed to deal with the problem, the extent to which these young people were being marginalised became increasingly more evident. Much recent research demonstrates that educational measures alone cannot offer lasting solutions to the problems of early leavers created by occupational and social restructuring. Even upgrading the level of qualifications attained by marginal groups is not sufficient since a shortage of jobs may simply cause employers to shift the criteria upwards.

The problem of school drop-outs and young adults with low levels of qualification has so far not been a high priority among policy makers in the partner countries. However, statistics indicate that about 20% of each age group now leaves the education system without a recognised qualification. Particularly among vocational school students the drop out rates are high. The predominant character of vocational education must be considered as an important factor behind this phenomenon. This is so both in terms of the organisation of the curriculum (based on annual programmes with a diploma only at the end of the whole programme) and with respect to its contents (separation of academic and vocational subjects, insufficient integration of theory and practice, traditional teaching approaches, little attention to individual learning needs, unclear employment perspectives, etc.). A serious review of the drop-out issue may therefore well lead to a further improvement of the quality of vocational education.

The potential role and contribution of vocational education for both the prevention and remedy of early school drop-out will soon be high on the agenda of educational policy makers. The social and economic implications of high drop-out, youth unemployment and related marginalisation and social exclusion will become more visible and the transformed Phare assistance will be an additional stimulus. It can also be hoped that ministries of education and labour will have to come closer together in developing adequate policy responses.

4.2.5 Adult education/lifelong learning

Continuous and unpredictable change in the employment system has radically altered employment patterns among the working population. It has become increasingly evident that stable life-long jobs are a phenomenon of the past and that people would have to adapt and/or change their occupations more often within their professional lives. This development has of course triggered a debate on the nature of initial or youth education and has led to the understanding that the latter can only be foundation learning. The importance of adult further education and retraining has received new attention, not only in its traditional meaning of second-chance education but rather as an inherent characteristic of normal professional careers. Hence the concept of lifelong learning.

While the principle of lifelong learning has become generally accepted, it is clear that most education systems are still ill equipped for its provision. However, major changes are currently being implemented, some of which have already been mentioned in earlier parts of this text.

The changes that are crucial for developing a lifelong learning system are open pathways in education and a recognition of informal learning. The development of national qualification standards and the use of modular approaches are especially supportive to this. One other related development is formed by attempts to integrate the various segments of vocational education and training (youth, adult and retraining) within one infrastructure. The development of regional training centres in some EU countries is a perfect example of this trend. A strong incentive for such integration has also come from the expected cost saving effects of using buildings, teachers and equipment more efficiently.

4.2.6 Prolongation of transition from school to work

Increasing levels of graduate unemployment combined with the changing nature of employment in general has caused the transition from school to work to change fundamentally in character. Whereas in former times there was normally a direct connection (also in time) between vocational school education and a job position in the employment system, the transition from school to work has now become both more complicated and time consuming. It is not uncommon for young people to spend several years after finishing initial education going back and forth between different types of jobs and training before establishing themselves in the employment system. The transition has become more and more precarious for most young people and large numbers of youth do not succeed at all.

In response to the prolongation of the time period of transition between school and work a new infrastructure has developed in most countries aimed at facilitating and guiding young people during this phase in their lives. The institutions range from occupational guidance, to temporary work schemes, special unemployment measures for school graduates and combined training and employment initiatives. A whole range of quite innovative measures for drop-outs and disadvantaged youth have been developed with the aim of preventing the extended transition from school to work period becoming a source of social exclusion and marginalisation. It is characteristic for such measures that they purposely combine social, educational and employment objectives. Often they are also funded from different sources (or ministries) simultaneously.

4.3 The individual and pedagogic perspective

4.3.1 Rationale

As above, in Western Europe the pace of change in education has been particularly significant during the last decade. Vocational education and training systems have been transformed at an ever more increasing rate. The current education structures are major economic and social systems that have been shaped by pedagogical, social, cultural, economic and employment considerations. All these factors have always been present, of course, but their relative importance has changed over time and also by the type of education provision. Pressures for change are particularly strong in Western adult and continuing vocational training systems followed closely by initial vocational training systems due to their close relationship with the dynamic employment system. Despite considerable differences among the EU countries, it is possible to indicate some common trends in the evolution of education systems as a whole.

Generally stated, most Western European education systems could be considered to have passed the stage of the uniform 'mass education' culture towards the 'client' stage of educational development. Here the quality issue quite naturally emerges as a concern of the citizen. He or she is no longer satisfied with formal access and the right to education, or with a minimal education service. Entering the 'client' phase also changes the education paradigm from supply-driven teaching to demand-led learning, which is likely to be the dominant characteristic of the coming years. Not only do students and companies become more critical. The wider choice gives them more power and increases the appetite for change, flexibility and customising. This of course is related to more complex and variable/individualised qualification requirements, as well as to people's less uniform ways of life and expectations (the 'deconventionalisation' of modern life styles).

The curriculum values prescribed by Phare vocational training programmes set an ideological agenda which reflects, at least, the implicit value system embraced by the EU funding countries and largely accepted by the partner countries' PMUs. The varied scenarios of vocational training-curriculum design in the different Central and Eastern European countries were analysed in the light of these transformation needs and their relation to the world of labour.

4.3.2 General education alongside vocational training

Curriculum reform in vocational training is a complex process which cannot simply reflect the on-going or expected changes in the labour market. It involves not only legitimate economic interests expressed in the skills demands of the employment system but also educational goals of a more general character along with the concerns of young people to develop their personality and safeguard their own future opportunities. The need to balance the multiple and often conflicting demands made on vocational education and training means that the decision-makers are faced with difficult choices, and this is even more accentuated and complicated by the conditions arising from the economic, social and cultural transformation in Central and Eastern Europe. A youth education system as part of the national, post-16 education system must have broader aims than just skills production. The following aims may be mentioned as a required minimum:

- personal development;
- occupational and general qualifications required to develop trade and industry;
- understanding of society, its values and its democratic development.

In many Central and Eastern European countries the overall, national curriculum structure is not yet in place. The Phare vocational training approach is basically a bottom-up approach where the pilot schools produce occupational-oriented curricula. But the procedures, rules and responsibilities at the national level are not well established in many countries at the moment. In particular, the development of 'dedicated', tailor-made general subjects in vocational training and the combination patterns of vocational (practical and theoretical) and general subjects/themes are not clear.

In most countries the curricula combine vocational training and general education in a subject oriented and school related educational environment. Vocational training subjects may be strictly related to a sub occupation in an occupational field; in others vocational training is strictly organised by professions. It may be directed to broad based professional fields or to small occupational areas.

Some of the countries have experimented with a modularised vocational training system. These modules are related to special tasks from occupations and have a strong relationship to the technology of the occupation. Content and methods of modules are specified from occupational tasks using real technology in the world of labour. In some cases the modular system is adapted to the experience of general education. Modules are thus seen as specialised subjects.

A few countries have experimented with open systems with a great number of modules where the students have free choice and can arrange their own individual learning profiles. To be able to work with a great number of modules one needs a very flexible approach with excellent vocational and personal guidance systems. Needless to say this is expensive.

As an example vocational education and training in ***Bulgaria*** *is traditionally scholastic and academically based. Even in the secondary vocational schools vocational training is dominated by general education. Introducing vocational training modules into this system from the Phare project could only be successful in the framework of new subjects with practical significance. The 'Phare' philosophy tries to organise vocational training in defined broad occupational areas including a system of modules for special occupational tasks. To adopt these modules in the Bulgarian environment needs an analysis of the relevant labour processes which is not possible in the current situation. Certification which guarantees individual occupational experience in different fields on a fixed Bulgarian standard is under discussion but makes no sense without the labour market analysis.*

In other countries much more weight has been given to establish a new vocational education and training system logic and find ways to create efficient and self-sustainable communication channels between the employment system and the education system.

One example is the ***Estonian*** *approach which is very strong on defining the vocational-oriented parts of the curricula through the construction of modules defined by the employers in working out occupational profiles. The training programme to become a skilled worker is thus a specific combination of modules based on the list of functional tasks required by the sectoral social partner organisations. Still unsolved, though, is the integration of general subjects to secure the broad educational ambition of the Estonian VET system. These subjects are still taken from the existing general subject 'catalogue' containing descriptions of the subject matter of the upper secondary programme (the 'gymnasium'). Work should be done to develop specific and relevant general subjects for the vocational training sector, not only to support the coherent logic of vocational training programmes, but also to try to establish parity of esteem between the different routes in the post-16 education system.*

At the other end of the scale, paradoxically, we find the neighbouring country **Latvia.** *The Latvian curriculum design approach is based on the philosophy that initial vocational training should not only focus on teaching young people to work but is also a broad youth education system for the 16-19 age group. Thus it is a requirement that general subjects are specifically created for vocational training and be given due place in the curriculum. The system is very much based on an educational pedagogical logic. On the other hand, the relations between the vocational training schools and labour market structures are comparatively weak in Latvia where there is still a lack of institutionalised structures to narrow the gap between the world of work and the world of the school.*

4.3.3 The labour process and the organisation of vocational training

In most partner states, vocational training is organised in subjects; the contents and goals of basic technological subjects are mostly described by the basic laws of the natural sciences in their relation to basic technology. This is not useful for the labour market. The technological descriptions of the functions and structures of basic machinery are fixed in the curricula but relevance to modern technological systems as they may be used in the companies is missing.

A closer relation with the labour process in the region can only be achieved by in-company training but the problem is not resolved of how to analyse the labour process and to describe in-company training.

In **Slovenia** *the introduction of several professions in a dual vocational education and training system was conducted with help from neighbouring countries. An exchange of curricula at the institutional level was organised. But a dual system also needs to include workshop practice and experience in companies. Companies in Slovenia are under reconstruction and not yet interested in vocational training. Without a strong commitment from local and regional companies (which is difficult in the near future) the link with labour processes is not possible. As a result vocational training schools are forced to take this role for themselves and realistically one has to assume that the leading role in making vocational training more labour market relevant will continue to come from the vocational training institutions.*

4.3.4 *Translating labour market needs into curricula*

Involvement from the world of labour is needed for help with curriculum design. In most of the countries reviewed the new world of labour does not yet exist. In established companies reorganisation of labour is impossible while modern equipment is still missing. Successful companies are not engaged in vocational training, their few experts cannot spare the time for curriculum work. Consequently, the designers of the new curricula are teachers with experience from the past. Nevertheless:

in ***Lithuania*** *assessment of curricula against their labour market relevance was a key concern for the Phare project. The pilot schools tried to involve individual employers in their activities, but with varying success.* ***Due to the lack of a structured dialogue with the social partners, the project encountered difficulties*** *in both the joint development of job profiles and the assessment of whether curricula are relevant to labour market needs. However, the PMU and the schools have managed to involve industry and employee representatives as much as possible. The methods used to test the relevance of curricula have been regional meetings, questionnaires and employer participation in final examinations. Individual employers and the Chamber of Commerce have been involved together with pilot schools. Assessments are also made to receive feedback from students about the contents of the new curricula and the teaching methods offered.*

in ***Romania*** *the Phare vocational training programme has made a major effort to co-ordinate the input of the social partners at regional level. For the pilot schools the programme has developed an approach to qualifications which enables the Ministry of Education to certify learning attainment and the social partners to identify competencies on the certificate when assessed during work practice. The definitions of 'standards' of competence have been agreed between the World Bank (Ministry of Labour) and the Phare vocational training (Ministry of Education) projects.*

in ***Estonia*** *each new training programme is based on an analysis for the job profile. Each analysis reflects the results of a national survey carried out in co-operation with employer organisations to establish the skills, knowledge and attitudes currently practised and required by skilled workers within that occupation. The occupational analysis provides the basis for defining skills for each occupation and for setting standards upon which assessment, certification, validation and qualification of skilled workers can be made. Employers and their representatives are very much involved in this process through the 'professional councils' which have been set up.*

Slovenia *too has developed an elaborate institutional system for social partner involvement.*

4.3.5 *Student and teacher perspectives*

The general change of terminology in vocational training in Western Europe in recent years from 'skills and knowledge' to 'competence' is more than just a change of terminology. Much more emphasis is being placed on the ability 'to act'. The shift from teaching to learning and taking responsibility for one's own learning is necessitated by the increased demand for personal competencies in modern industry and commerce. New qualifications cannot be achieved only through the introduction of new learning content but are primarily dependent on the implementation of new learning methods.

Change in most EU countries is also necessitated by the problematic relationships between teachers and students in traditional classroom settings. Modernity has changed the identity of students and requires a redefinition of teacher styles and roles. The cultural contract in the form of values and shared frames of reference, which used to underpin teaching, no longer exists in modern Western societies. Students today are so different that it is often difficult to create a common understanding in and around the teaching processes. The cultural and vocational competencies needed by vocational students in modern society cannot be developed only through traditional teaching and the traditional teacher-student stage setting. Students possess more information and data than ever before. The overriding problem is to understand the wealth of information and to sort out the useful pieces of information.

The pivotal point may best be described as teacher reliability and student responsibility.

A new 'contract' may be established on which the learning process can be built: the vocational teacher has the professional/pedagogical responsibility and must accept ownership of the learning process, while the students have a clear learning responsibility. Co-operation and a shared responsibility replace the vacuum in relation to traditional teacher-centred instruction created by cultural change.

The concept of the teacher as the 'process owner' organising the learning environment for students cannot be realised by the individual teacher on his/her own. During the last few years the notion of 'team' has become a key concept in the pedagogical debate in Western countries. The vocational schools have witnessed a new pedagogical scenario emerging: from teaching and instruction to a setting where the focus is on the students' learning processes and on the forms of organisation which support this learning. **Teamwork has become the organisational answer to a number of pedagogical and cultural challenges facing vocational schools today**. Team working presupposes a new form of teacher professionalism. A team of vocational teachers is an interdisciplinary, broadly competent group which can organise learning processes and analyse and assess the continuous learning experiences of students.

Teachers and students are interested in the new styles of learning demanded. In most of the countries reviewed new curricula are focused on independent and self-learning or by teamwork.

4.3.6 *Teacher training and institutional organisation*

Developing the teaching and learning process with students, teachers and instructors has been done in various ways in the different Central and Eastern European countries. It was not possible to fully analyse the outcomes since in most cases they are still in the process of designing the new curricula.

The generalised Phare vocational curricular process (and some of its organisational manifestations) seems to be consistent at least in terms of acceptance of the underlying value systems outlined in the Phare Programme.

Teachers in most cases had some introductory courses in new methodology to help organise the teaching process. Teachers and students were and are familiar with the practice of this new style of learning. Nevertheless, help and training is still required to design the 'co-operative' new vocational training processes. In principle all teachers should experience intensive practical courses.

Vocational training teachers, in all Central and Eastern European countries, have no or very limited experience and knowledge of the labour process. Pre-service teacher training is orientated to the theoretical knowledge of the corresponding scientific field to be learned in the same way as natural science subjects. In most cases vocational teacher training is lacking, very few teachers have an academic degree. In some countries further training for interested teachers is organised to provide additional skills in handling special equipment or is reduced to short training phases with new computer equipment.

Basic (and also further) training of teachers should be geared more towards co-operation with regional companies, on needs from the modern labour process and the practice of modern learning processes.

In countries which are implementing detailed modular curricula there is a need for more practical courses in the handling of modern production and maintenance systems.

In countries with more open curricula the requirement is for courses in the design of learning processes determined by the character of the regional labour and economic environment.

The general problem is the missing element: methods for the analysis of regional labour needs and the integration of those needs into regionally specific curricula.

Vocational teacher training is urgently needed given that most teachers are not only dominating the learning process but also are the designers of new curricula.

> *In the questionnaire returns from the* **Slovak Republic** *it is mentioned that '... there is dissatisfaction with the distinction and separation of training of teachers for theoretical subjects and instructors for practical subjects. More integrated theory and practice would be optimal with a modular system similar to that being developed for the secondary vocational training system...'*

There is therefore an urgent need not only for the reform of teacher training but also for the intensive further education of teachers. Teachers require not only academic studies and work experience, they must also be able to convert this experience into their teaching. Teachers need to understand the organisation of workshops and be familiar with the labour environment and it's future development in companies. Only then can they bring the student's learning closer to the world of labour. Dividing the teaching and learning process into two parts with theory on one side and practice on the other side is practised. However, this division is more harmful to the learners' competencies than the reduction of practical experience if the teachers, instructors and students do not learn to combine technological theory and the labour process with the actual functioning of machinery.

In a broader sense, and quite typical for development models based on pilot school strategies, there is an unresolved problem related to the general national implementation of the new curricula formulated under the Phare vocational training reform programmes. This is the lack of corresponding 'up-skilling' of teachers and trainers outside the programme. There should be the added weight of introducing the new curriculum principles to pre-service as well as in-service vocational teacher training. In most countries under review, vocational teacher training is provided by the universities and is thus still very academic and has not changed much in recent years. To secure understanding of the new principles, and dissemination and implementation of the new curricula a massive teacher training programme would be necessary. Without the acceptance of the teachers, it will not be easy to implement the results. In the final analysis, much is decided in the individual classrooms and school workshops by the vocational teachers and trainers: they are the key factor also in the new system.

These initiatives require strong management support at institutional level, vocational training programmes such as the Polish MOVE (Management of Vocational Education) programme introduced quite powerful management training packages for school leaders and regional education officers. However what is required is organisational development for a school as a whole. Changing the climate of an institution and the attitudes of staff requires resources and time; it requires long term commitment at national level with clear policy objectives. Experience in EU countries for the development of new types of learning organisation with new types of management skills assume development periods of a decade at least. Following the MOVE programme (two to three years) the Polish participants have created a National Association for Education Administrators to bring together practitioners and theorists across all education sectors for the long haul.

4.3.7 *Student practice in the workshop*

All participants in the teaching and learning process need individual experience with the labour process including the organisational environment of workshops and the labour environment in different economic sectors. Students should have practical experience with the labour process before they leave vocational training for the labour market.

In the countries reviewed this is done in different ways: inside partner companies or in production areas of school related workshops, within the labour process or watching the labour process, as partners of workers or as 'analysing students'. In most cases students have a week or month-long practice phase in or after the two to four years of vocational training. This practice is not sufficient to understand the world of labour, but it could be helpful to analyse its organisation and to get some impressions from the labour environment.

In ***Romania,*** *workshop practice for students in the second year of vocational school is orientated towards project development and product achievement which aims at encouraging the experience of students in technical skills, creativity and teamwork; for example, making furniture as a micro-production activity. Another example is in tourism where school students practice during the summer holiday in the Black Sea resorts. This kind of practice is guided to become a reflective learning situation.*

In a number of countries (for example, Estonia, Latvia, Poland, Slovenia) attempts have started to transform existing schools into regional vocational education and training centres providing learning environments for both students and workers from companies in the region.

4.3.8 Learning facilities in schools and companies

Learning materials and equipment in nearly all Central and Eastern European countries remain mainly unchanged. Even new equipment for the pilot schools takes a long time to arrive. The latter are still unproven in the specific learning environment and in their relevance to the actual market place.

Between schools and local companies there is a traditional network based on individual contacts between the directors of schools and companies. Another type of network often exists between teachers and local companies to get jobs for students. These networks should be widened towards new small and medium-sized companies in a region.

5. What next? Recommendations

For the content and process of the curriculum, the main messages to be lifted from the analysis are concerned:

- with the links between the Phare vocational training curriculum policy and labour market relevance;
- with work experience and relevant teacher training;
- with all the big issues that vocational training reform still has to face to sustain the progress so far made.

For the strategy and policy perspective the theme continues that the curriculum as we have defined it here is more than the syllabi and vocational training reform is more than the curriculum. Consequently '*what next?*' Is a concentration on institution building, continuity and infrastructure.

5.1 *The individual and pedagogic perspective*

Vocational training should be seen not only in the context of economic demand but also representing the adaptation of training systems to give a chance to the individual for self-determined development; that is if the 'democratic' principles of EU determined criteria are to be fulfilled. The possibility for individual development is only present if political and economic systems in transition are combined not only with the redesign of curricula but also with regard to individual behaviour. Changes in education may be planned as a whole but must include an evaluation of the outcomes for individuals.

The development of 'individual/ autonomous conduct' is a precondition for the development of jobs in small and medium sized companies especially in the service and hi-tech sectors.

This reflects the approach from employers towards individual competencies and attitudes. The world of labour in the future exists in a complex multi-dimensional scenario and cannot be seen as a reduced and over simple description of a number of basic skills barely perceived by employers focused largely on short-term interests.

In all the Central and Eastern European countries reviewed, vocational training structures and processes are under review and reform. In most of them the teachers and students involved in the pilot projects are committed to the new styles of learning as advocated by the proponents of the Phare programmes. New curricula are focused on independent/self-learning and problem solving, dealing with new technologies with the main goals centred on the development of key-competencies. Pilot schools have got or will get new equipment to experiment with new technologies. But the connection between the world of learning and the world of labour is less than optimal. Methods of labour market analysis, largely, have yet to be adopted. The connection between learning and labour is often reduced to irrelevant theory or unreflecting 'doing'.

The following are the main conclusions:

1. **For the curriculum the problem is not yet resolved of how to analyse the labour process and to describe in-company training. The responsive interrelation between vocational schools and regional companies is not sufficient or, necessarily, even in existence and needs to be improved in the light of the local labour market. This requires institutionalisation of the local role of social partners; review of the legal status of schools (governing bodies, school companies, key stakeholders); local mechanisms for analysing training needs.**

   Following the abolition of the close and interrelated links between skill producers and skill users in the previously centrally planned economies, a serious information gap exists between the analysis of emerging modern skill requirements and their conversion into appropriate training programmes. At the same time neither effective instruments nor appropriate institutions have yet been set up to re-establish functioning links within the framework of a market economy.

   Although the Phare vocational training reform programme has covered some ground in this field, particularly in the quantitative aspects of analysing labour market needs, there is a lack of focus in the curriculum design process (i.e. is on labour process knowledge, on job construction in companies, on job analysis, and on how learning takes place on the job). This is still a great challenge in the structural adaptation of vocational training systems. Pragmatic but in-depth studies of some of the concluding pilot school curriculum development projects might be worthwhile and could serve as examples of best practice in how to ensure that the curriculum matches the needs of the occupational sector and of how to work in partnership with a number of private companies to ensure that students get relevant hands-on experience.

2. **Strategies should be developed to expand the capacity of vocational school teachers and trainers to carry out skills analyses themselves. This should lead to analyses of the needs of local companies and to 'translate' qualification needs into curricula as well as into practical teaching sequences, thereby reducing the information gap and the time-lags between the world of (scientific) labour market analysis and the world of education and training in the schools.**

   In all conceivable vocational training systems, teachers and trainers require a strong theoretical and practical knowledge of the world of labour. A serious 'translation problem' exists in all countries (also in the EU countries) since there is a long way to go from the more or less formalised qualification analyses to conversion of these studies into curricular specifications. The qualification analyses produced by industrial sociology tend to finish 'too early' so to speak. Accordingly the vocational training schools start their curriculum planning 'too late' and too close to the actual educational challenges and too far away from job analysis. This sharp division of labour between occupational/industrial sociology, on the one hand, and educational sociology and pedagogics, on the other, leads to a situation where the difficult problems tend to remain unsolved in the vacuum between two scientific traditions.

   Much can be learned from the Phare curriculum development experience. With the reform of vocational training, the pilot schools have been forced to try to convert new requirements from industry and commerce much faster into new training schemes and new forms of instruction. The new companies are not much engaged in vocational training, and their few experts cannot spend any time for curriculum work. This leaves the problem for teachers in Central and Eastern European countries of the transformation of those needs into locally relevant curricula with integration into more general learning processes. Vocational teacher training is urgently needed given that most teachers not only dominate the learning process but are also the designers of new curricula.

3. **There is an urgent need not only for the overall reform of teacher training but also for the intensive further education of teachers. Teachers should not only have academic studies and work experience but must be able to convert this experience into their teaching concepts. Teachers should understand the organisation of workshops and be familiar with the labour environment and it's future development in companies. Only then can they bring the student's learning nearer to the world of labour.**

   In most of Central and Eastern European countries vocational teacher and trainer training is delivered by the universities and is based on a curriculum which is not sufficiently geared towards their future professional lives as teachers. Basic (and also further) training of teachers should be geared more towards co-operation with local companies, on needs from the modern labour process and the practice of modern learning processes. Teachers, in most cases, have had some introductory courses in new methods to help organise the teaching process. But teachers and students were and are (not often) familiar with the practice of this new style of learning. Therefore help and is still required for teachers and learners to design their co-operative new VET-processes.

4. **Between schools and local companies there often exists a traditional network. This network is based on individual contacts between the directors of schools and companies. Another type of network often exists between teachers and local companies to get jobs for students. These networks require widening towards new small and medium-sized companies in a locality.**

   The role of the vocational schools in curriculum design and delivery requires increased co-operation with local companies and ways must be found to involve the newly established small and medium-sized companies in vocational training. It is supposedly well known that vocational training in the educational school system cannot follow the fast changing requirements of the labour market because of the rather long duration of the education. Consequently, in some countries, e.g. Hungary, it has been considered necessary to create complementary, more flexible forms of educational provision outside the traditional vocational education and training system. The network of vocational schools might be given more room and incentives to play an active role in the growing adult and continuing training market. This would mean closer contacts with the companies, a sharpening of the capacity to undertake training needs assessments, an increased awareness of the school's function as a service provider and it would generate much needed income.

   Societal institutions only die slowly, and there are some opportunities to re-establish links with the companies. Schools have to change their focus from the national ministries towards local and regional client groups. To be seen as relevant to the newly established SMEs, the schools have to be highly responsive to the demands of employers and to satisfy their needs in a given region. Taking on a new role as the regional technology and competency centre is already today a reality for some of the technologically and methodically well-equipped Phare pilot schools, e.g. in Estonia, Poland and Slovenia. In many Central and Eastern European countries it should be taken into account that the local vocational school (of which there generally are too many) is the only public infrastructure unit which could have a greater role to play by establishing partnerships with local business in backward regions.

5. **In many Central and Eastern European countries there is a need to concentrate more effort on formulating the overall, national curriculum structure. The procedures, rules and the distribution of responsibilities at the national level are not yet in place. In particular a well-balanced combination of vocational subject elements and the 'dedicated' general subject elements deserves more attention.**

Initial vocational education is more than just training for labour, it is also an important part of a broader youth education system (post-16 education). The design of new general subjects of greater relevance for young learners and in accordance with a specific training programme should have a higher priority. One interesting example of a promising strategy is in Latvia where, as an integral part of the Phare vocational training reform efforts, five new tailor-made general subjects have been developed. The lack of a solid national curricular platform as a point of departure for the Phare bottom-up development approach, where the pilot schools produce occupational-oriented curricula, easily leads to the import of foreign blueprints; these fit only partially into existing structures. Thus in countries which are implementing detailed modular curricula there is a need for more practical courses in the handling of modern production and maintenance systems. In countries with more open curricula, the requirement is for courses in the design of learning processes determined by the character of the local labour and economic environment.

6. **There is a sharp division between theory and practice, between classroom and workshop, and between vocational teacher and trainer functions in most of Central and Eastern European countries. This separation between the intelligence of the brain and the intelligence of the hands is very problematic for the combined learning outcomes of the vocational students and must eventually change.**

   Dividing the teaching and learning process into two parts with theory on one side and practice on the other side is practised in many of Central and Eastern European countries. But this division is more harmful to the learners' competencies than the reduction of practical experience if the teachers, instructors and students do not learn to combine technological theory and the labour process with the actual functioning of machines and tools. If instructors are involved in the vocational training-process they should also have labour experience. In many cases students have a week or month-long practice phase in or after the two to four years of vocational training. This practice is not sufficient to understand the world of labour, but it could be helpful to analyse its organisation and to get some impressions from the labour environment. Practical experience of the real labour situation should be organised in a more effective and intensive way for the students in the light of related theory and real work.

   The qualification needs of companies require competent workers who are able to combine theory and practice. What is needed in the vocational education and training system is a configuration of teaching, learning and practical work exercises. This framework might help to gradually strengthen the student's individual capacity to move between a theoretical-analytical competence and a more experience-based, intuitive competence. depending on context. This is a very serious challenge to the existing structures in vocational teacher and trainer training in almost all Central and Eastern European countries (and in most EU countries as well). A good way to try to systematically upgrade this integrated approach is to support the vocational schools in becoming continuing vocational training providers. The continuing training activities offered to experienced workers from local companies might force the vocational training teachers to combine theory with the experience and (often tacit) knowledge of their adult course participants.

7. **A contradiction is to be found in most curricula. There is a demand from the labour market for key-competencies but how to develop them in the teaching process is not described! Good teachers need more free space in the curricula to design and experiment with their own concepts of teaching.**

   In all Central and Eastern European countries the traditional way of teaching divides the comprehensive learning process of the learner into teaching processes in theoretical and practical subjects. The content of the old curricula was (and mostly still is) systematically broken down into small basic objects and terms which can be learned separately. Teaching methods cannot be related to learning how to solve practical problems. In a post-industrial situation, however, a content-oriented approach is inadequate because of rapid economic and social change. A different perspective is required in which not knowledge as such but competencies become the central focus. To be able to equip students with these competencies, the vocational education and training system must change from an institution in which knowledge is transferred by the teachers to an institution in which knowledge is transformed by students. Students need to learn how to cope with uncertainty which is to some extent inherent in modern production processes. This means that besides acquiring process-dependent competencies students also need to acquire process-independent competencies (key competencies such as responsibility, communication, initiative, etc.). Vocational schools must change their traditional education and training provision into institutions where continuous qualification processes become possible.

8. **Induction into school-based curriculum design and delivery should be given more weight. It would be advisable to provide programmes for school managers in 'innovative pedagogical leadership' so that school managers might upgrade their pedagogical leadership function. This is an important function. The curricular reforms introduced are so radical that 'visible leadership' is needed.**

   A quite considerable element of the Phare vocational training reform programmes has been school management training. This has typically concentrated on strategic management, funding/school budgeting, personal management, the management of change, networking (local, national and transnational) and marketing. In general, the commitment of the pilot schools in all countries involved has been very high. School managers and teachers have grasped the opportunity to develop new curricula and enjoy the freedom they have been given. But particularly school managers are in a key position. They are heads of pedagogical institutions. They need not only to be trained in how to manage business but how to manage people. There needs to be renewed investment in training school managers to become efficient leaders of the innovative pedagogical process. Teachers appear exhausted after the first intensive curriculum production, but only some occupational families have been covered and the new curricula will have to be continuously updated. Sustainability will require incentives, coaching and a strong involvement of school leaders on the content-side of vocational training programmes in the coming years. School managers are not sufficiently trained to head this ongoing and really never-ending renewal process.

9. **To avoid the risk of encapsulation of expertise in curriculum development, teachers and trainers involved in the Phare vocational training reform programmes should be given broader pedagogical and teacher training work assignments. This should be designed to give added systemic weight in how to handle the new curriculum principles outside the pilot schools.**

   In all experimental pedagogical work organised as pilot projects the most serious challenge is the risk of 'encapsulation'. As the Phare vocational training reform strategy has been organised, this will be a major problem. The approach has been based on picking out some well-functioning schools and selecting some of the best teachers and trainers who are then protected from the mainstream vocational training infrastructure. The difficult and troublesome conditions are kept out. It is easier to promote a development environment in this way.

   With new equipment, supportive teacher training, the availability of national and foreign expertise, travel abroad, etc. one would expect successful outcomes within the limits of the programmes terms of reference.

To avoid the risks of isolation and elitism the pilot schemes must be formally anchored in the 'ordinary' structures responsible for administering the vocational training system. A feeling of shared ownership towards the new procedures is necessary, and this largely has not been the case in the Central and Eastern European countries. A very critical factor is the ability of the national vocational education and training system to make intelligent use of the often brilliant 'change agents' who have been trained during the reform programmes. Plans should be formulated to make sure that the well-trained and competent teachers are utilised at all levels of vocational training to strengthen the valuable human resource base made available to each country by the Phare Programme.

10. **To establish relationships between learning and labour in vocational training requires adequate learning materials, equipment and facilities but these remain largely unchanged. Even new equipment for the Phare pilot schools has taken a long time to arrive (up to two years). This point is made by Phare and Tacis monitoring units but it needs to be made to the European Commission rather more than to project management units. Even so the equipment supplied is still unproved in the specific learning environment and in its relevance to the actual market place.**

The procurement procedures related to the equipment part of the reform programmes have been very problematic; equipment has been installed much too late in most cases with negative consequences for teachers and students and leading to a sub utilisation of the potential contribution of the Western partner schools. This must be avoided in future programmes. The new equipment is very important to the pilot schools and makes them more attractive as partners for the local companies. But is seems advisable to check whether the schools have got the appropriate technology in terms of relevance to learning as well as to the actual use in companies.

5.2 *The strategy and policy perspective*

Those partner countries who have undertaken Phare vocational training reform programmes now face problems that are related to the larger organisational consequences of curricular reform rather than, necessarily, the content and method of the curriculum. These problems will also be related to the development criteria for Social Funds presented for 'accession' countries, notably '*labour market policies and policy management*'; '*education and training systems and their links to the labour market in terms of transition of young people, training for the unemployed and lifelong learning*'.

One of the lessons to be learned for ongoing programmes in the New Independent States and Mongolia and in those countries still undertaking Phare projects (Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia) is to undertake policy and strategy and labour market analysis components at the outset and not at the termination of projects.

What is clear from the analysis presented in the text which follows is the interrelation among the different aspects of government policy whether social, economic or educational. We can bring this to the attention of policy-makers but the brief here is to prioritise policy measures necessary (even if not sufficient) to be undertaken under the auspices of vocational training in co-operation with the ministries of education, labour and the economy, and with the support of the other actors both within the system and outside it particularly in relation to the Social Fund consequences of 'accession'.

What happens next depends on the situation each system has reached in establishing the building blocks of an effective vocational training subsystem within its transformation context. These building blocks represent the path (to switch metaphors) along which strategy and policy have to travel. The countries evaluated (for the networks around the PMUs which vary in political weight) have clarified the concepts and issues but only partially put the building blocks in place. What are they?

From a general point of view, a successful vocational training system (independent of its cultural and historic context) needs to possess the following ingredients:

- to be able to define occupational sector priorities (*on the best evidence available*);
- to be able to identify the appropriate occupational sector competencies and skills required (and to *construct the institutions and tools to do this*);
- to be able to turn these into curricular profiles and programmes and measurable standards *(already underway in the Phare vocational training reform programmes*);
- to deliver these at school level (*including the capacity to transfer from pilot to system level);*
- to help make the processes attractive to students and teachers *(transferability, visibility and portability of qualifications for students and working conditions for teachers);*
- to provide for timely and effective feedback through evaluation, monitoring, quality control and tracer studies of school leavers.

The elements above have to be undertaken in the context of establishing the balance between general and vocational provision and in the context of transparent and accepted approaches to standards, certification and qualification.

All of the above has also to be related to the context of financing mechanisms; changes in the location of decision-making; a credible research base; the development of management capacity, the acquisition of appropriate tools in-management as well as curriculum development per se.

Along this spectrum, then, the Central and Eastern European countries have very different locations despite an apparent common curricular philosophy.

- The Bulgarians have launched a vocational training reform programme with little labour market information;
- the Czechs, Slovaks and Romanians are only at the very beginning of privatisation and enterprise restructuring and have - until very recently - given little political priority to the reform of vocational education;
- the Latvians and Lithuanians have developed an 'education logic' to reform without initially having institutions for involving the social partners;
- the Estonians have strong social partner involvement but have yet to integrate their different initiatives into an overall education policy document;
- the Baltic countries, generally, have gained considerable 'conceptual clarity' but have yet to 'institution build' and to fill institutional gaps in their systems after independence from the Soviet system;
- the Slovenians have, perforce, gone ahead with putting in place all the partnership institutions and transversal pathways of a modern vocational training system while applying a rather conservative curriculum approach;

- the Hungarians have combined World Bank loans and Phare support in a coherent and modern long term strategy, knocked slightly off course by the economic circumstances of the mid 1990s;
- the Poles have so far found it difficult to integrate successive Phare vocational training reform programmes into an overall national policy concept and much of the change has been the result of local and regional initiatives.

An important point to make (and make again) in this comparative evaluation is that for the ten countries there has been a convergent approach to curricula development within a divergent set of transformation circumstances, largely within a common time frame unrelated to the stages of economic development within each country.

While strategic development has to be undertaken over decades rather than years, nevertheless here we have to ask what are the present policy priorities. For this paper our suggestions are:

1. **The production of green and white policy papers that give systemic weight to the development points at policy level; the assumption is that the stages of pilot experimentation and concept building can now give way to institution building.**

   Many Central and Eastern European countries are developing or proposing to develop policy concept papers for vocational training which attempt to give strategic weight to the further systemic implementation of each programme's outcomes. These 'concept papers' have the combined roles of: evaluation and dissemination; consensus building; establishing the building blocks of vocational training infrastructure for further policy development and implementation; establishing a coherent long-term development programme. The Czech example has the highest profile. Such a paper has future indications for legislation, resourcing, locations of decision-making, teacher training, institution building both on the supply and demand side; consolidating labour market mechanisms and of course research and curriculum development capacity. Assisting this process would be an enabling function for human resource development at the institution building stage.

2. **The strengthening of existing institutions or the creation of new ones by defining their functions around key development foci such as those elaborated in this text.**

   The question is being asked as to what institutional homes need to evolve from the curricular, structural and policy processes being undertaken, whether for labour market analysis and mechanisms, certification and assessment, research, teacher training, social partner or other umbrella and support bodies. In all the cases this is a major next stage and has barely begun even in the most advanced countries. The case studies suggest a preference for strengthening existing institutions rather then creating new ones; however there is no clear rationale for this preference. Either way there is a clear case for funding support to assist regional/national economic development.

3. **There is the need for a political voice or voices to make the case for the consolidation of what has been gained politically coherent and for the small 'p' political case for developing management and organisational capacity in the education and training fields in the same way as has already been conceded in the field of public administration.**

   Alongside institutions (and of course more important) are people. The necessary critical mass of the change agents already put in place need to be retained or developed, whether they be curriculum developers, researchers, school directors, social partners or trained teachers. This is particularly true of the highly skilled Phare vocational training PMU staff. There is a danger, brought out in the Baltic cases, of 'encapsulation'; of having too few people in too few constituencies who can understand and articulate the highly complex terms and concepts involved in the reforms let alone drive them to implementation. Hence the need for policy papers (above) to both disseminate and drive policy through the political green and white paper stages.

4. **Complementary to institution building there should be a strong emphasis on management and change management capacity applied to all actors but particularly to strategic, organisational and management skills.**

   Management training in the present Phare vocational training reform programmes has been primarily concerned with the individual school manager rather than institutional and organisational development. If policy development and institution building are to be linked then education and labour organisation/institutions should be given the same high profile capacity building programmes as government administration; but on an organisational development basis rather than that of the isolated manager.

5. **Mechanisms for continuity and sustainability: alongside 'institutional homes' and development capacity should be the development of administrative procedures and structures to take innovative ideas forward in a routine way.**

   Arrangements for a legislative framework and certification/qualification procedures are good examples as is the *routinisation* of labour market analysis and skill requirements, as well as a recognition of the role of schools in continuous curriculum development and innovation. These latter are already becoming the preoccupation of the PMUs as the programmes come to an end. Both labour market mechanisms and qualification systems, as well as school based innovation capacities require the level of investment coming from social funds rather than from relatively small, albeit innovative, pilot projects.

6. **Organisational complexity**
   Future investment in vocational training reform and the consequent design of programmes should be accompanied by a better understanding of the organisational complexity of the sector: a role for the 'analytical' capacities of the European Training Foundation.

   Vocational education and training is a complex sector. Most people in the field do not properly understand the sub systems they are working within; politicians do not understand vocational training and have probably not personally experienced it.

   As a simple example we can take *the organising principles of the curriculum.* It is possible to have a course based, subject based or modular approach to the organisation of the curriculum. The Central and Eastern European country cases which have attempted to implement a modular approach have variable approaches, from no modules (Latvia, Slovenia) to a 1000 (Estonia) or some (the Czech Republic, Poland and Slovak Republic). The organisational, resourcing and institutional implications of such an approach are considerable. It is not clear why this approach has been advocated (or not) for Phare vocational training programmes in general or by specific advisers in particular. The organisational implications are barely grasped in the EU countries, for example the complex relations between modularisation and a credit based or competence based approach.

What emerges from the cases is the difficulty of implementation despite the theoretical advantages of flexibility and linkage between initial and continuing training.

These suggestions for policy initiatives are all based on the assumption that what has been started under the Phare vocational training programmes is basically sound in view of constructing the fundamentals of a modern vocational education and training system but need further action in order to secure continuity and sustainability. However, both the analysis of external benchmarks and the results of what labour market analysis that has been undertaken indicate that in each country some immediate corrective action would also be needed to better cope with the acute problems of the transition period and to further improve the conditions for ongoing vocational training reform. These might include:

- a priority to decrease drop-out rates in both basic education and vocational education, by individualising curricula and teaching methods;
- to prioritise open pathways within the formal education system and eliminate all terminal routes;
- to secure that all qualification levels are covered by the education system and clarify which types of schools provide education for which level;
- to develop pilot schools as regional vocational education and training centres and stimulate integration of youth and adult vocational training, cost efficient use of resources, social partner involvement at regional level as necessary conditions for future access to EU Structural Funds;
- to stimulate pilot schools to reflect on possible actions with respect to transition from school to work problems, also in preparation for future EU structural funding.

It is also important to radically improve the co-operation between ministries of education and ministries of labour on the following issues:

- the development of integrated labour market mechanisms including information sources on job and training opportunities;
- development of occupational and educational standards, classifications, qualification levels and certification;
- where appropriate relating Phare vocational training programmes to the World Bank programmes;
- initiating action with respect to transition from school to work measures;
- the expected increase in adult unemployment;
- preparation for EU structural funding;
- review and restructure educational systems within the perspective of life long learning.

5.3 *Final remarks*

Our review of curricular reforms in the Central and Eastern European countries, although based on a rather limited analysis, has concluded that in all the countries important steps have been made towards reforming national vocational education and training systems. Individual countries, however, differ considerably in terms of what has been achieved, which of course has much to do with their starting positions at the beginning of the 1990s.

The principal characteristic of the Phare supported curriculum reforms for vocational education and training has been the attempt to initiate a systemic reform of the whole system through the introduction of a particular curriculum model in a limited number of pilot schools. The model was imported from EU countries and, though ideologically attractive, paid little attention to the specific transition conditions of each individual country. Basically the programmes were targeted at modernising the contents of selected vocational curricula with a view to making them more labour market relevant. The Phare programmes in most countries were the only, or the most important vocational training reform initiatives but necessarily they were faced with the challenge to 'touch' other aspects of the vocational education and training systems that needed reform.

These latter have proved to be of fundamental importance and include institution building (for social partnership, research and development, school innovation etc.) as well as invoking the need for policy and strategy review (vocational training as part of social and economic development, vocational training as an element of overall educational reform). Clearly, local Phare programme managers and their foreign advisers have in most cases been unable to make much progress in these domains.

These issues have been highlighted in the body of the text and need to be taken into account in the design and implementation of any future programmes.

A second set of critical issues relate to the rather narrow curriculum conception that has been adopted in most countries within the framework of the Phare programmes. This has resulted in a focus on changing learning contents and introducing assessment of learning outcomes. This approach is very much 'in vogue' in some EU countries (though not uncontested). Our review has indicated that, in Central and Eastern Europe, much more attention is needed on improving learning environments and the learning process as such. This includes the changing role of teachers as organisers of learning processes as opposed to transmitters of knowledge and skills, as well as a review of the contribution that classrooms and work places can make to acquiring vocational competencies. We have also found that the focus on labour market relevance has been at the expense of attention to individual learners.

Nevertheless, and finally, we would argue that, at the end of the decade, most Central and Eastern European countries have come closer to the ongoing debates about vocational education and training in EU Member States then they were at the beginning of the 1990s. This includes an increased awareness of the need for institution building and future oriented policy making (including lifelong learning) as well as a capacity for critical reflection on existing learning arrangements. Even if systemic reforms of vocational education and training have not yet been fully achieved it will be important to stimulate and promote these developments.

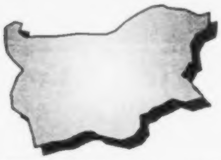
ANNEX

A Cross Country Analysis of Curricular Reform in Vocational Education and Training in Central and Eastern Europe

The cross country analysis which precedes the summaries is based on fuller versions of the case studies included in this text and on a detailed questionnaire returned by the project management unit staff of the Phare vocational training reform programmes.

Each summary has the same five sub headings:

- Findings
- The vocational education and training system
- Curriculum content and goals
- Designing the curricula
- The challenge



Bulgaria

Findings

The introduction of a modular vocational education and training system is starting in some pilot schools. The modules are integrated into a system of occupational vocational training. Teachers are working on new modules which are related to occupational areas. Experts in educational administration and vocational teachers have identified the changes in the labour market and accept the complementary necessity for change in the vocational education and training system. Teachers in the pilot schools are committed to developing new ways of teaching and learning with new curricula (harmonisation with the old system). The requirement of systemic transfer from pilot schools is accepted. The reform of the vocational education and training system in Bulgaria will have quality criteria but faces problems, i.e. with weak commitment from companies, missing qualifications for teachers and trainers, and the missing orientation of curricula towards the world of labour, especially given the huge number of required modules for different occupational tasks.

The Vocational Education and Training System

Vocational training is organised in broad occupational areas including a system of modules for special occupational tasks. Certification guarantees that there has been individual occupational experience in different fields to a fixed standard. The number of occupational fields is limited. There are problems with its integration into the traditional system of secondary education. Vocational training graduates have knowledge and skills in different parts of the occupational area, and will be able, after graduation, to:

- start professional work immediately at a certain level;
- work in a appropriate way in special areas;
- initiate programmes with new and more sophisticated modules;
- handle tools and machinery in the labour process.

The number of graduates is not sufficient yet but, in the future, society will have to deal with:

- the integration of graduates from the modular system into the labour market;
- the organisation of progression towards high-tech practice.

Vocational training in Bulgaria has adjusted to a new occupational framework. The number of occupations has been reduced. The new system starts with 'some' modules in pilot schools. These are organised as an integrated system in schools and are related to specific occupational areas. In the future the experience from the pilot schools will be used to enlarge the number of modules.

Adjusting the modules to the Bulgarian situation is difficult. The integration of modules in the schools faces several problems especially in view of new occupations. The relation between the world of labour and the world of learning is very weak. The modular system has problems interfacing with traditional vocational training learning in schools and companies. An orientation towards the labour process in high-tech areas requires new equipment in the schools and new qualifications for the teachers. New attitudes and new approaches have just been initiated.

Stronger co-operation among the partners in the vocational education and training system and process design in the occupational areas, (experts in the ministries, the chambers, the schools, the workshops and offices) should be established.

Curriculum content and goals

The modularised vocational training system includes:

- the individual organisation of occupational learning;
- progression with new modules;
- the orientation of individuals towards real occupational tasks;
- a better integration of technology through special modules including workshop experience;
- flexibility in the light of the changing demands of the labour market;
- training workers on small scale jobs in production;
- adjusting demands in the vocational training process to students with learning difficulties.

But this system also has disadvantages such as:

- problems with the development of a useful conceptual framework related to practical work;
- high costs for developing and maintaining a huge number of modules;
- a complex (knowledge oriented) certification system.

Learning to handle more complex systems in high-tech areas (requiring learning from experiences inside the labour process) will be difficult to realise in the context of a limited number of modules. The availability of modern small and medium sized companies for training in special production and service areas is non-existent. However, working groups in the pilot schools are busy with the transfer of developed modules into the rest of the system and at the same time initiating new modules. The organisation of a classification of occupations is in progress as is the design of curricula for new modules.

Nevertheless, a continuous broad and deep analysis of labour processes still requires implementation. The link between curriculum design and the analysis of the world of labour is also to be established. The education of teachers is not adequate to the demand and the involvement of companies is limited.

Support is required for research into the Bulgarian curriculum design system and the strengthening of commitment from companies at all levels of vocational training design.

Designing the curriculum

Adjusting vocational training towards occupational areas and modularised learning requires in the curriculum design process:

- an analysis of the labour market and a study of its future development;

- a specific regulation for the design and certification of learning via modules;
- vocational education and training legislation with clear regulations;
- sophisticated transfer from labour tasks into learning;
- detailed organisation of the modules' design process with participation from all social partners;
- close co-operation among the vocational training partners, special schools and companies.

The experts in the Ministry of Education and the teachers in the schools are engaged in the design process, the involvement of the experts from the workshop level is not sufficient. The analysis of the world of labour and the engagement from the companies is still at the beginning. Teacher training does not fully correspond to the new occupational fields.

The organisation of the new modular learning process requires strengthening of:

- an institutional framework for the curriculum design process;
- workshop practice in the curriculum design process;
- access to working places;
- sensitivity to future developments in companies in the light of new modules;
- co-ordination between the newly created vocational training modules and general subjects;
- support for the involvement of teachers trained for the modular curriculum design.

The Challenge

Vocational training reform is starting in the pilot schools. Integration of the reform into the rest of the system is difficult especially in view of the organisational context of the schools. Modules will transform occupational subjects given a strong relation to the demands of new technology essential for the labour process. Teaching these modules demands practically and theoretically trained teachers with practical experience in companies. Individual guidance and counselling for students will be required for learning in the modular system.

The Czech Republic

Findings

The Phare vocational training pattern emphasises:

- a learner/student outcome based approach to pedagogy;
- the reduction of specialist areas;
- an integrated and vocational preparation approach to the first years;
- the introduction of core or key skills;
- a closer relationship between education and enterprise.

The curricular reform principles are accompanied by a package including management training for school leaders; teacher training; equipment procurement; attempted work experience; a modular approach to the curriculum with its management implications.

It would be fair to say that 95% of the actors involved in the programme accept the value strands indicated above. But the implementers of the Phare vocational training reform programme involved only 19 of the 800 schools in the vocational training subsystem. Even among these 19 schools there are large variations in the internalisation of the approaches both to curriculum development and teaching methods. Some schools merely changed the labels and carried on as before, carrying the rhetoric of the labels before them. The big question is to what extent has a critical mass been established for further systemic development.

Overall, VUOS (The Research Institute for Vocational and Technical Education) declares that the conclusions of the experiment of 19 pilot schools can be used for the ongoing process of transformation of the Czech vocational training system. We also have to remember that the Phare vocational training reform programme is the only major, international donor-funded, education reform package in the Republic. However small, it is the only programme with a philosophical and ideological base that fits the human resource elements of the ongoing economic and social transformation process.

The whole range of actors interviewed agreed that institution building, however defined, is the priority:

- developing the capacity of both the Ministries of Labour and Education;
- setting up a National Council for vocational education and training;
- establishing appropriate certification, qualification and accreditation bodies;
- consolidating and developing the vocational training research capacity;
- establishing and consolidating social partner structures.

It is accepted that the programme, as such, has been successfully implemented by the main actors including the National Training Fund, the PMU, the external technical assistance and the associated contracted actors. *Procedural* problems have stemmed from *procedural* systems: delayed delivery of equipment, contractual delays and the late starting times which are related to EU regulatory conditions. The evaluation programme and its associated publication *From Pilot Schools to Reform Strategy* has been a marked success. The consultation exercise involved in the evaluation is as near as a project could hope to impact on government policy. Not only were 3500 questionnaires in circulation but consultation workshops were carried through for the chambers of commerce, the labour offices and the school directors; all this leading to Green and White papers.

Essentially, at least at the nominal level of the actors directly involved, Phare vocational training curricular philosophy is accepted. The issues remaining are the conceptual cultural organisational and managerial contexts in which they have to be implemented. In short, curriculum development, as such, is no longer the issue. Curriculum organisation, resourcing and management - the curriculum in the larger sense - are centre stage.

The Vocational Education and Training System

The Phare vocational training reform programme started in 1994 and finished in 1998. The objective is to contribute to sustainable vocational education training reform through activities in curriculum development, establishment of educational standards, management, teacher training, quality control, involvement of social partners and financing vocational training. A total of 19 schools were selected to develop and test innovative curricula and to participate in school development and staff training courses.

The Phare vocational training reform programme, in principle, took into account:

- an analysis of the country's overall economic development plan;
- meetings with the different actors including the Ministries of Labour and Economy;
- more global labour market trends.

In 1995 the potential growth areas in the economy were identified as: services, tourism, banking, automation techniques, computer techniques, civil engineering. The occupational sectors chosen for curriculum development were: mechanical engineering, electrical engineering, the chemical industry including ceramics and glass; civil engineering, agriculture, economics, trade, catering, services.

The actors involved with the steering committee were ministers and directors in the Ministry of Education, directors in the Ministry of Labour and the Social Partners.

Curriculum Content and Goals

The curriculum philosophy has, initially, a broad based and integrated approach followed by an approach to specific occupations predefined by occupational profiles and following the broad structural criteria outlined in the first section of the text. To the question 'do new curricula sufficiently follow the changes in employment structure?' The answer is 'partly!'. That is, there is emphasis on core skills and 'multi-functional' employees. There is a concept of basic curricula with a number of compulsory lessons related to basic knowledge and skills that all students have to acquire. General education accounts for between 25 percent and 45 percent of content depending on the year and level. General education is provided in separate subjects. The vocationally related contents combine specificity of technical knowledge and skills with behavioural and organisational flexibility. It is important to bear in mind the historical preponderance of narrow specialised branches and the relative small-scale nature (however methodologically important) of the Phare vocational training reform programme.

Independent learning is encouraged particularly given that while initial training is a starting point, in principle the primary focus of the system is lifelong learning. At the second level, theoretical and practical components are roughly 50/50; at the third level the balance is 70/30 theoretical/practical. Given centrally determined requirements for the basic curriculum, schools have a great deal of autonomy to decide on further curriculum content. Schools discuss curriculum content with social partners; they take into account local needs.

Designing the Curriculum

The design of new curricula, longitudinally, involves: the school and social partners the Ministry of Education VUOS the Branch group the Ministry of Education. Phare procedures rationalise this to: school+VUOSMinistry VUOS.

Education levels are defined but are stated to follow EU comparability criteria 85/368 rather than ISCED. General criteria are highlighted relating to student flexibility and autonomy.

No rationalisation or reclassification of occupations took place before the inception of Phare vocational training curricular reform. There will be a new process of co-ordinating links between school and work following the establishment of a National Curricular Council for vocational education and training. This may facilitate coordination between the Ministries of Education and Labour. It is not yet foreseeable when a reclassification of all occupations might be accomplished. Occupational profiles, on the other hand, have been developed for vocational schools but not yet fully for the technical schools. Some 'small' analytical work with a limited number of enterprises supported these profiles. There are no obligatory criteria for the profiles nor a regulatory framework. However, national curricular guidelines had been established before the onset of the Phare vocational training reform programme but which are seen to be compatible with the latter.

The Challenge

Given all its strengths, the important dimensions for the Phare vocational training reform programme are the facets surrounding the management of change at each level in the system. For example, training an isolated school manager in management/leadership at an outside course means that he/she returns from his/her cultural island to a highly resistant mainland.

Institutional development is holistic not individualistic.

The other side of the coin of management of change is the embedding of certain key administrative procedures to ensure continuity when the project as such has become 'history'. This is why qualification and certification procedures (preferably embracing European Norm 45013 of 1989) are an important means of consolidating, legislatively and in regulatory form, the objectives and values of the Phare programme curriculum processes. This is another aspect of 'the institution building' identified as a priority by the Czech actors.

'What next for the Czech Phare vocational training reform programme?' is likely to be financially modest in programming terms but critically important in building the capacity within existing institutions and organisations — to sustain success.

Estonia

The vocational training curriculum reform approach applied in Estonia might be called *the labour market training model'*. This is one variant among many other different types of curriculum models being tested in recent years under the Phare vocational training programme - and under a number of other donor projects. This is a deliberate choice made by Estonia to combine the provision of initial vocational training and continuing vocational training in one national structure.

Findings

The 1994 Phare vocational training reform programme has made good progress in raising the quality of initial training in selected pilot sectors. The programme has developed guidelines for drafting of occupational competencies in key economic sectors, as well as a national (modular, industry-based) curriculum model. A National Examination and Qualification Centre was established in January 1997 which, once fully operational with trained staff, will be in charge of national curricula, assessment and examinations. The aim of the Centre is to ensure a high quality of coherent vocational training provision throughout the country and the development of national education levels to facilitate progression mechanisms within the vocational education and training system. Substantial resources will be required to accomplish this task.

The Ministry of Education is in the process of setting up a new Council for Vocational Training to represent government, social partners and other national interest groups in the training field. Employers are particularly involved in the Phare vocational training programme. Social partners are actively involved in setting up a national qualification system and occupational standards.

Thus the institutional framework is (at least in principle) in place in Estonia. A new vocational education and training system logic has been built up, based on self-regulating mechanisms, where the dynamic pressures are created by employers and the PMU is asking the vocational education and training system to respond to requirements from 'customers'. Around the vocational education and training system, new independent and strong actors have been created on the input side of the system, and new actors on the system's output side have been created (the 'awarding' function).

The new curriculum model is a coherent and well-structured modular system based on the Irish labour market skills training system (FAS). This model was chosen by the Estonians because it is a flexible and adaptable system; being modular and competence-based it can embrace initial training for young people as well as continuing training for adults and unemployed people. At the same time the system allows for transparency, for recognition of qualifications and for mobility. It is a promising framework for life-long learning and gives better opportunities for individuals who did not achieve their full potential under the former or present systems. The system is a unit credit system where units can be accumulated, it is an output-based system with final tests after each module. Every vocational training programme consists of 15-20 modules (skilled workers' course) - the norm is 1 credit = 1 module = 40 hours of study. Thus the system is very flexible and update-able, and the modular structure makes it applicable also to adults. The use of systematic modular descriptors makes it transparent at national level.

The vocational training pilot school administrators like the modular system. The employers are very much in favour of the control system of the modules - with guaranteed skills after each module.

Most teachers don't like the detailed regulations from above and object to the detailed prescriptions of what to learn and how to learn.

In general, the Phare vocational training reform strategy has been successful with the application for selected pilot sectors of a highly systematic approach based upon industry needs. The Phare project has been catalytic and has resulted in institution building, the new methodology is now well established, and the logic of the vocational education and training system has changed.

Curriculum Content and Goals

Curriculum reform in vocational training is a complex process, which cannot simply reflect the ongoing or expected changes in the labour market. It involves not only the skill demands of the employment system, but also educational goals of a more general character along with the concerns of young people to develop their personality and safeguard their own future opportunities. The need to balance the multiple and often conflicting demands made on vocational training means that the decision-makers are faced with difficult options, and this is even more accentuated and complicated by the conditions arising from the economic, social and cultural transformation in Estonia.

Estonia has chosen a blueprint based on a labour market training system. The educational approach is in fact very narrow. A youth education system (initial training as part of the national, post-16 education system) must have broader aims than just skills production. The following aims may be mentioned as a required minimum:

- personal development;
- occupational and general qualifications required to develop trade and industry;
- understanding of society, its values and its democratic development;
- providing young people in vocational training with a basis for further education.

The Estonian approach seems to be less strong on this broader youth education perspective. This is necessary not only to make vocational training courses more attractive for young people and establish the necessary conditions for parity of esteem, but also because these general qualifications have become prerequisites for mastering modern jobs and for team-work. General qualifications become more and more often vocational qualifications. There is no established national curriculum structure in Estonia at the moment. The Phare vocational training approach is a bottom-up model where the pilot schools produce occupational-oriented curricula. The modules contain detailed descriptions at the level of teaching plans which can then be combined into full educational programmes. But the procedures, rules and responsibilities at the national level are not well established at the moment. In particular the development of 'dedicated' general subjects in vocational training and the combination of vocational and general themes are not clear.

This is problematic in two ways. Employers tend to formulate skill needs at a minimum level based on actual combinations of machinery and manpower. But to reap the full return of the investment in modern production technology, workers must be highly skilled. This is why the trade unions are so much needed as partners in vocational training: to secure that the broad qualifications acquired allow for mobility in the labour market and a continuous renewal in the man-machine configuration.

The introduction of modules has advantages, but also drawbacks. In Estonia the modular VET system introduced with short and detailed modules risks to lead to competencies relevant to a taylorised organisation of production. The labour market problem here is that modern production concepts require broadly skilled competent workers able to take initiatives, who are curious, and can act in a self-steered way. The pedagogical problem is that effective learning processes require a combination of self-organised problem formulation, planning, execution and evaluation done by the student as well as a self-reflection about his/her own learning activities. The planning problem is that a considerable 'external' educational planning is required to establish and maintain a modular system with maybe more than 1,000 individual modules. This will require alot of effort in Estonia, as will the national regulations of how to play with the 'Lego' brick building blocks.

It should be noted that the Estonian approach is relatively flexible: modules of up to 10 weeks duration have been designed within the new structure. The modular principles are not too restrictive. It should also be kept in mind that the curricular, methodical and pedagogical skills of educational planners at national level and among (selected) teachers and school leaders in the vocational schools are still relatively weak. The best approach might very well be a firm and detailed description of learning contents and guidelines for teaching.

Designing the Curriculum

The 'drive' of the Phare vocational training reform process in Estonia and the motivation of the actors involved are very impressive. The curriculum development pilot project has covered a lot of ground already. The process is now described as being 'unstoppable'. A new logic of the vocational education and training system is visible with a growing sense of vocational schools being 'service producers' (at least the pilot schools) and employers being 'customers' requiring quality. Around the Phare pilot programme self-regulating mechanisms have developed; the organised representatives of the employers are now a pressure group asking the Ministry of Education, the PMU, the National Centre for Examination and Qualification and the schools to respond to their demands. The PMU also functions as an efficient pressure group demanding action from the Vocational Training Department, the National Centre, etc. Pilot schools are required to send their new curricula directly to the National Centre for Examination and Qualification to be handled there rather than at the PMU.

Strong personal links also exist between the Ministry of Education, the pilot schools and other actors on the one hand and the PMU on the other. The 'anchoring up' function in the ordinary structure is thus reasonably in place.

An immense learning process has been a central part of the Phare strategy. Curriculum development officers (CDOs), school managers and teachers have not only been thoroughly trained but have also been given a number of work and development assignments. Furthermore, the wide and well-prepared dissemination strategy is an important factor. The massive injection of methodological expertise throughout the different levels of the vocational training system involved in the Phare vocational training programme is also an opportunity which the Estonian authorities should be advised to make careful use of.

The ambition to develop and transform the Phare pilot schools into Regional Training (Technology/Competence) Centres of Learning is an idea which should be promoted. These schools have the modern equipment, the trained staff and the curricular framework in place to serve the local/regional re- and up-skilling needs. At the same time the planners and teachers already trained through the Phare programme would add to their skills through 'learning by teaching'.

Estonia now has a well-trained group of educationalists and teachers able to act as 'change agents' in systemic reforms. In addition they have broader functions in the ordinary vocational training system, for instance as CDOs, as vocational school teacher educators, as mediators in 'learning regions' around the country, as quality care developers, as experts in the National Centre for Examination and Qualification, etc. This is a great opportunity for Estonia, but as experience shows, rarely made clever use of. Strategies to formulate career opportunities as a consequence of the human resource development efforts involved in the Phare vocational training programme should be a high priority now during the final days of the programme. Very soon there will be only one structure - the ordinary vocational education and training system. Within this structure a number of positions might be defined which would be suitably "personned" by the 'change agents' to optimise the use of scarce human resources.

The Challenge

In all types of pilot projects there is a risk of 'encapsulation'. You start by selecting a number of the best entities, and in order to give them good development conditions, you protect them from the difficulties in the ordinary structure. At the time of transfer and broad systemic implementation of the pilot results, all the real world problems and barriers suddenly turn up again. The risk of barriers in the ordinary structure is always a serious factor to be reckoned with when going from the phase of 'vocational training reform project' to the phase of 'national vocational training reform strategy'. One extra challenging factor in the Phare vocational training strategy is the 'Modellschule' approach where a number of 'elite' schools are given equipment, coaching, travel, development assignments, etc. leaving the 'backward' schools years behind. It is not quite clear how Estonia will cope with this problem.

Another threat to the dissemination of the new curricula is the situation in vocational teacher training in Estonia, pre-service as well as in-service training. To be sustainable the Phare vocational training reform approach will need a massive up-skilling of teachers through a major national in-service programme. Modularisation as the basic pedagogical principle is a change of working conditions for Estonian vocational training sector teachers. 'The teaching of modules' may be seen as a de-qualification from the point of view of the professional teacher, so not only technical up-skilling but also ideological and awareness promoting courses will be needed. It is a golden rule that teachers are primadonnas and should primarily be orchestrated.

The pedagogical/professorial establishments at the universities, responsible for all vocational teacher training has not wanted to become involved in the Phare vocational training programme. There is a pressing need to create a special vocational teacher training function to secure dissemination and implementation of the new curricula. Without the acceptance by the teachers the implementation will be problematic.

A disturbing factor in the new curricular infrastructure created by the Phare programme are the fragile structures around the pilot project. The institutional capacity of the Vocational Training Department in the Ministry of Education seems to be relatively weak.

The National Centre for Examination and Qualification (modelled on the British formula of the National Council for Vocational Qualifications under the Ministry of Education) has two functions: the national examinations (time-consuming), and vocational training related matters. The Vocational Training Division has not yet started its work. It needs clear mandates from the Ministry of Education, technical support, building up of its capacity by attracting new experienced staff, and coaching through twinning arrangements with comparable institutions abroad. The Centre is responsible for establishing the national qualification structure on behalf of the Ministry of Education and is responsible for accreditation and certification of modules and of educational profiles constituting a skilled worker. At the moment at least 130 'modular descriptors' are awaiting serious handling by the Centre, but nothing has happened yet. This situation is a potential risk to the motivation and momentum of the curriculum development groups. Something should be done immediately to support the National Centre as new modular descriptors are coming in every day.

Hungary

Findings

Curriculum changes in Hungary did not start in 1989 with Phare support, nor are they unconnected to other aspects of education reform. One of the striking characteristics of Hungary is the high degree of continuity in the changes that have occurred in society at large during the last 20 years.

The educational reform agenda, and indeed some of the necessary institutions, were already prepared during the 1980s. What we witnessed during the 1990s is the, more or less, successful attempt to implement ideas and concepts developed earlier, to adapt them to evolving conditions and to develop and stabilise the required institutional framework. During this process, decision-makers exerted a strong political leadership, relied heavily on involvement of all stakeholders involved and showed a remarkable - pragmatic and eclectic - openness to international experiences and developments. Curriculum development has been part of an overall reform concept and because of this, the typical Phare pilot school approach has had quite another impact than in most other Central and Eastern European countries.

That educational reform agenda did not, however, explicitly include new strategic concepts such as that of lifelong learning. It rather pragmatically covered the problems of the day, such as the modernisation of curricula and delivery systems, and structural changes in flows of students and educational pathways considered necessary to make Hungary a modern society comparable to other developed countries in the world. But it also included elements of systemic reform such as further decentralisation of governance and administration, free educational choice, social partnership and increased labour market relevancy.

In general, therefore, it can be said that important institutional foundations have been laid for a future-oriented strategic policy which must still be formulated and agreed upon.

Curriculum Content and Goals

A fundamental characteristic of vocational training reform in Hungary is the postponement of vocational education until after 10 years of elementary schooling, i.e. at the age of 16, or after completion of secondary school at the age of 18. Vocational specialisation only follows after a common period of basic vocational education during which general vocational issues are taught combined with an introduction to skill family specific ones.

The Phare vocational pilot school components were an extension of a larger programme financed from a World Bank loan (covering 61 pilot schools from 13 occupational areas or skill families). That means that Phare funds have mainly been used for assisting in the implementation of additional curricula and/or in additional skill families (plus related textbook development and equipment provision) while the basic conceptions and design principles were prepared earlier. The Phare programme was terminated in 1997. At about the same time a new World Bank loan for vocational training has been successfully negotiated. All together about 80 additional pilot schools have been involved in the initial phase of the vocational training reform programme.

In each of the pilot schools a curriculum development group has been established, comprised of a representative of the local authorities, the head master, teachers and technical experts from industry. The groups received support from the National Institute for Vocational Education (NIVE) and from foreign experts. Most of the work was done by the end of 1996.

New curricula cover all three main levels of competence, from carrying out pre-described duties, to performing in a given occupation, to independent work in uncertain and unstructured work situations. They are based on a restructured educational and occupational classification. The latter are laid down in a National Register of Recognised Qualifications that contains almost 1000 specialisations. This list did not yet include new occupational titles for areas such as automation, computer technology and services. Only those qualifications included in the Register are recognised and eligible for public funding.

Designing the Curricula

The curriculum approach is based on agreed occupational profile definitions and is aimed at providing broad-based training in a limited number of skill families (21) in a first phase, followed by specialisation in a second phase. Each curriculum document contains two parts. The first one spells out the general principles for the organisation of vocational training. It contains the legal background, the aims of the programme, entrance requirements, a list of occupations that can be undertaken on the basis of the qualification and the structure of the training programme. The second part describes the central programme of the particular subject: its aims, output requirements, teaching contents, the relationship between the subject and other subjects, the method of evaluation and equipment requirements for the teaching environment.

The new curricula follow the trend towards more group-oriented work and learning-to-learn in order to be able to cope with changing situations.

They provide a framework by defining the number of compulsory lessons, the basic knowledge and skills that all students should possess, and the knowledge and skills that all students from the same family of skills should have. The curriculum leaves space (about 20%) for local adaptation. As vocational education does follow after general education (either at elementary or secondary level), the curricula do not contain general (=academic) subjects. They do contain non-vocational subjects, such as environment protection, health and safety etc, which are provided as separate subjects. Ways of teaching include the whole range of possibilities from frontal to self-learning. Much of this depends in reality on the particular school as the core curriculum is essentially output oriented. Relation between theory and practice differs depending on the particular qualification but on average accounts for 60% theory and 40% practice.

School management, teacher training and curriculum implementation

As in other countries the Hungarian VET system distinguishes between teachers for general subjects, general vocational subjects and practical training. While the latter have qualifications at college level, the teachers of general and vocational theory have either university or college level qualifications. In 1997, a demand-led in-service teacher training programme has been introduced financed by a special ear-marked budget from the state.

Learning materials are presently being prepared, a process that is expected to last until at least the end of the century. These include teacher guides, textbooks and other support materials, student tests and curriculum guidelines. The respective branch ministries are in charge of this. While the pilot schools have received support for purchasing necessary equipment funding of non-pilot schools remains a problem. The Vocational Education Fund remains the principal financial source.

The overall impression is that Phare has been considered largely instrumental and as providing financial support for the implementation (including the use of international experience) of a largely domestically developed curriculum concept.

Decreasing role of firms and development of flexible education pathways

Surveys and interviews with employers point out that formal diplomas and certificates of traditional occupations rapidly loose their value. New manpower recruitment, especially in the growth sectors, becomes more and more based on an assessment of attitudes, potential and relevant competencies rather than on the possession of a formal diploma.

At the same time, however, the direct involvement of enterprises in vocational education has sharply decreased. This has had implications for the structure and the provision of vocational education. In general, it has increased the role and importance of school-based education. The number of apprentices went down to 30% of an age group (from formerly 50-55%). Practical training places in (large) enterprises went down by 60-70%. As a result, practical training presently takes place mostly in school workshops (40%, enabled by low interest loans from the Vocational Education Fund) or in small enterprises (30%, co-financed by the Vocational Education Fund). Initial vocational education has become largely a school-based institution but also adult education and retraining almost exclusively takes place in specially established (and World Bank loan financed) Regional Training Centres.

However, vocational education itself is no longer a dead-end route any more; at least not all forms of vocational education. Large groups of young skilled workers now follow on with their studies (at 17-18) and achieve a full secondary school certificate after two years. They delay their entry on the labour market, stay longer in school and achieve higher educational levels. However, higher education normally means more theoretical education, which not necessarily contributes by itself to a better labour market situation.

The appearance of new pathways in education is one of the most striking phenomena in the Hungarian education system. But these new pathways seem to be rather the result of ad-hoc education and labour-market crisis management than the outcome of a strategic policy for lifelong learning. And because of this it is not yet clear what the value of these new pathways will be on the labour market: will they simply mean alternative, more flexible, routes to the same type of occupations, or will they also lead to new types of jobs and careers? For the moment, the first is more likely to happen. Will they be part only of the initial education system for youth? Or will the new pathways also become accessible for adults, as the lifelong learning concept would imply? Again, at least for the moment, it seems that the first will be the case.

Thus, while educational pathways are increasingly more flexible, developments on the labour market tend to go in the opposite direction increasing the risk for the educational system to become (and remain?) largely isolated from the employment system.

Broad-based initial education, postponed specialisation and social partnership

With the new regulations that came into force in 1998 (the National Core Curriculum of the Ministry of Culture and Education and the National Vocational Qualification Register plus central programmes of the Ministry of Labour), a further restructuring of the education and training system is under way. This involves the introduction of many curriculum changes (adapted core curricula for the various types of vocational education) and the implementation of a series of new training routes (post secondary education, specialisation courses after secondary education, etc.). Both instruments will provide powerful national frameworks for the decentralised and differentiated provision of vocational education and are expected to lead to increased output standardisation and transparency of quality levels. Continuous labour market relevancy will be secured through the working of the Vocational Education Council.

National Register of Qualifications

The National Register of Qualifications, introduced by Law in 1993, is regarded in Hungary as the corner stone of the new curriculum approach as it guarantees labour market relevancy of vocational qualifications. The Register is decided upon by the Ministry of Labour, after consultation with the National Council for Vocational Education. Proposals for inclusion of qualifications are made and prepared by the respective branch ministries (usually at the request of companies) or (since the 1996 amendments) by the Chambers with the support of the NIVE and the Department of Vocational Education at the Ministry of Labour.

The Register distinguishes qualifications that can only be achieved through the formal education system, those that can be achieved through labour market training and those that can be achieved in both ways. Schools can only provide education for school-based qualifications if a national (central) framework programme exists for the relevant subjects. The latter are elaborated by the NIVE and form the basis for school-based education programmes. This curriculum system and the structure of the Register will be further described in section II.

The 1996 amendments to the VET Law stipulate among others that school-based qualifications from the National Register of Qualifications can only be taught in and by schools when a central programme has been developed and approved as the basis for school programmes. The concept of a "central programme" has replaced the one of "curriculum" and Hungarians regard this as an indication of the new curriculum philosophy as being output oriented rather than process oriented. Central programmes are based on the professional and examination requirements that are listed in the National Register of Qualifications and are educational documents that ensure the fulfilment of these requirements during the educational process. They form the basis for school-level developed pedagogical programmes that can be adapted to local conditions (up to 20%).

Central programmes have been prepared based on the principal of filling the gap between input requirements and output standards. They have been further based on 3 main factors: time, final competence (irrespective of training method), and modular approach. The programmes are divided in two phases: a grounding phase and a specialisation phase. Depending on the phase number and grouping of teaching subjects (in a modular form) are specified. Modules are credited and allow for flexible transfer to other education programmes.

The development of central programmes is done in working groups where social partners, responsible ministries and school representatives are involved. The NIVE provides secretarial and expert support to these working groups.

National Council for Vocational Education

According to its statutes, the Council makes proposals and evaluates proposals concerning projects, funding and policy developments. However it can take no decisions. Final decisions are taken by the Ministry although so far all proposals from the Council have been accepted. This is partly due to the fact that in reality most proposals so far stem from either the Ministry's own Department of Vocational Education, NIVE or from the Secretariat. Other partners still lack basic capacities to initiate things.

One of the key areas of work for the Council is its consulting role with respect to the use of finances from the National Vocational Education Fund and to the National Register of Qualifications.

The Vocational Education Fund is built from an obligatory 1,5% employer levy on gross wages. Companies from the Public sector are exempted from this levy (but a change is under discussion). Agricultural firms pay 1,1%, but their levy is increased annually with 0,1 % until it will have reached the normal level. Enterprises can be freed from the levy under certain conditions, for example if they establish their own school or training centre (and can get additional costs also refunded) or if they directly support a school (but only 75% of the levy, the rest has to be paid into the Fund). This support can only be given for development purposes as local authorities are supposed to cover salaries and running costs already.

Since 1996, employers can receive 0.2% for the financing of "personal development" (= further training) of their workforce and this percentage is expected to be increased gradually up to 0.5%. The Fund, as written earlier, has therefore also a role to play in adult education and training.

The Challenge

In 1999 the Hungarian educational system was entering a new phase of development. Most of the institutional characteristics of a modern education system are more or less in place. These include decentralised governance, a large degree of school autonomy coupled with national education (National Core Curriculum/central programmes) and occupational standards (National Register of Qualifications), involvement of social partners, a professional national research and development infrastructure and co-funding by enterprises..

Looking back, one can say that what has happened in fact has been a combination of centrally initiated curriculum reform (largely funded from external sources but developed and implemented in a decentralised way) and a local-initiative driven development process. The latter has now become tamed and framed by the National Core Curriculum/Central programme approach and the Register of Qualifications as well as by attempts to develop higher (regional) levels of policy making.

Vocational education reform policy has focused so far on adapting an outdated and increasingly under funded system that has developed as part of a closed society and a planned economy to the conditions of an open and market-oriented society. This has included above all modernisation of curriculum contents and delivery (on a pilot scale now to be disseminated). But it also has lead to changes in the structure of the education system (increased flexibility and diversification) and - contrary to other Central and Eastern European countries - also implied a fair amount of systemic reforms, such as decentralisation of administration and participation of social partners in governance and funding.

Increasingly, educational policies are becoming more future oriented. Hungary's forthcoming EU membership has brought the need to align educational policy making and outcomes to trends in other European countries. Hence, the importance of the National Core Curriculum and the National Register of Qualifications, which both allow for increased transparency and quality control. However, as some observers have noted, external benchmarks have played a bigger role than sound information and development scenarios from the country itself. There has always been an immanent convergence argument underlying Hungarian education policy making and while this has been successful in attracting foreign assistance there is still a great need for fitting educational policies into indigenous economic development plans.

The overall challenge for educational policy makers will be to develop a system-oriented approach to education reform instead of the sector orientation that has dominated so far. Awareness of this has grown both as a result of the experienced limitations of the sector approach and because of the discussions about lifelong learning. A thorough modernisation and systemic reform of vocational education, for example, remains impossible as long as the quality of elementary schooling does not dramatically improve. If this does not happen, then the so-called specialised vocational schools will always have a partly remedial character. Similarly, a real opening up of tertiary education is not realistic as long as tertiary education remains characterised by fragmented academically oriented institutions and no serious alternative for graduates of secondary vocational schools will be available. In that case vocational education as a whole will increasingly become or remain a second best choice.

Latvia

The vocational training curriculum reform approach applied in Latvia might be called *the youth education model*. This is one variant among many different types of curriculum models being implemented in recent years by the Phare Programme - and by a number of other donor projects. This was a deliberate choice in Latvia.

Findings

In Latvia the vocational training curriculum development project started by defining a national curricular framework which should be followed by the different curriculum development groups. The Ministry of Education and Science formulated *Regulation 342* which specifies the requirements of new curricula and defines the roles and responsibilities of the various levels of authority involved in curricula renewal.

Latvia insists that initial training is a broad youth education where young people should not only learn practical skills but must also study general subjects to secure their personal and social development and give a basis for continuing education. It is also argued that specific general subjects must be developed within vocational education and training, subjects cannot and should not be imported. Thus a central part of the Phare project has been devoted to developing five new general subjects which are now obligatory in all new vocational training programmes and form a core curriculum. There is an important message from Latvia that general subjects cannot be just 'implanted' in vocational training from other areas, e.g. upper secondary education. Vocational training needs its own general subjects - also to promote the parity of esteem between the different youth education programmes in the country.

The curriculum development strategy has been based on a systematic building up of a support infrastructure. The Centres for Professional Education have been requested to take part in all parts of the development and implementation processes so that skills accumulation can take place and a more permanent dissemination structure be established to secure long-term sustainability.

The Latvian strategy has taken as its point of departure the fact that a modern tripartite decision structure involving the social partners could not be established as the dynamic driving force of the vocational training system. This was due to lack of interest and motivation from the companies, weak associations and demoralised trade unions. As a consequence it was seen as a necessary first step to get acquainted with the terminology and methodology of a modern curriculum system and train a number of teachers and national methodological experts in handling such a system. The foreign expertise was Dutch and in an efficient and effective way got the process started. The overall impression is that the vocational training pilot schools function well and that the students are satisfied with their new learning environments.

The Latvian approach is based on an 'educational logic' instead of a 'production logic'. Better teachers simply provide better education. This has been the central belief of the Latvian Ministry of Education and Science in its efforts to modernise vocational education and training during the last years.

Curriculum Content and Goals

The function of vocational training institutions is not to produce 'education' or 'teaching' but to produce 'qualifications' of use to modern society. The vocational education and training system must serve the employment system. It is important that the combination of skills, knowledge and attitudes produced corresponds with the needs of the companies. The relations between vocational training schools and the labour market are still weak in Latvia. There is a lack of institutionalised structures on the system input-side: signals about skills and competencies in demand, on the system process side: advise on teaching and learning contents and relevant pedagogical methods, and on the system output side: recognition and certification of skills produced. Ways must be found to narrow the gap between the world of work and the world of school. Overall, there is no clear structure in which the social partners can operate. However, a more permanent involvement of representatives from both employers and employees associations in decision-making processes will be needed in the on-going evaluation of new curriculum development group outputs as to their labour market relevance as well as taking part in the examination boards in order to ensure a uniformity of the qualifications of skilled workers. Even if the social partners are not in place to take on this responsibility, alternative methods can be found to establish 'service provider' - 'customer/client' relationships or even partnerships.

The structure of vocational training provision is extremely problematic with too many small schools offering outdated courses and under the auspices of too many ministries. This leads to the sub-optimising of the scarce resources available in Latvia. It will be difficult to disseminate the new curriculum principles and to implement the curricula in all schools in the country.

The relationships established between the Vocational Training Department of the Ministry of Education and Science, the Centre for Professional Education and the PMU seem to be unclear. The formal ministerial hierarchy does not function efficiently; the distribution of authority between the running of day-to-day vocational training business and the development unit established in the PMU should be made more transparent. From the ordinary Vocational Training Department point of view it is hard to take decisions with the superimposed structure of the PMU when everything must fit into the Phare framework. Seen from the perspective of the PMU, necessary steps required by the Phare vocational training programme (with pressure from the European Training Foundation) are not delivered. A realignment of forces and a restructuring of the Vocational Training Department must be undertaken to secure the results of the Phare efforts in the long run. Furthermore, the centres for professional education must be drawn closer into the curriculum development projects; they should have a clear assignment now to streamline their activities and plan the implementation of new curricula all over the country.

Modernisation of vocational training not only refers to changes in the structure of the educational system, or to changes in the contents of the curricula. Indeed, the most crucial issue is to change the very system 'logic' according to which the Latvian vocational education and training system has been - and to a certain extent still is -functioning. The main problem with respect to education and training might well be the absence of well-developed conceptions with respect to the organisation and management of vocational training under the new economic conditions. It is a clear weakness that a vocational training concept paper has not been produced in Latvia as part of the Phare vocational training reform programme as this had been planned as a necessary input to the drafting of the Vocational Training Law.

Designing the Curriculum

The design of new curricula has involved the following steps: identification and definition of needs (occupational profile), formulation of educational objectives (output profile), analysis of initial learners situations, structuring of learning contents, selection of methodologies, organisation of learning processes, implementation of education, and evaluation processes of teaching and learning. No reclassification of occupations has taken place in Latvia.

No occupational profiles had been defined before the Phare vocational training reform programme started. At the beginning of each curriculum development project the vocational standard is developed in the form of an 'output profile', the formulation of which is mandatory. The use of 'output profiles' is quite new in Latvian vocational training. It is important because it presents a methodology to build bridges between the world of work and the world of education. Qualification profile descriptions may thus be translated to educational planning goals and even play a supportive role in the planning of teaching at school/class level. It forces educational planners and practitioners in vocational training to reflect upon the labour market relevance of what they are doing, and it represents a meeting point between the consumers (companies) of the qualifications produced in the vocational training system and the producers (vocational training institutions). It is also an important instrument for students as it enables them to see the final outcome of and at least in principle, make understandable what they are asked to do.

The existing regulatory curriculum framework must be updated and specify how to form national regulations and standards and be even more specific on examination requirements, e.g. setting clear minimum requirements for passing the examination and ensuring uniformity of form and content of the examination. What is now needed is a clear definition of the responsibilities, roles and competencies of the ministries, the Centres for Professional Education and the schools involved in the curriculum development process.

No modular principles are applied in the curriculum development approach although this was originally discussed. Serious questions have been raised in the Steering Committee about the amount of work which would be required to construct modules, to renew them and to systematise the individual modules into a building block system where a unit credit accumulation system and accreditation mechanisms could be assured. If such a system is to be taken seriously, a strong centre at state level is necessary which teachers would strongly object to.

The Dutch curriculum expertise delivered by external experts more or less deliberately dropped the labour market/vocational training interplay and concentrated on the curriculum techniques. The curriculum methodology is still being used by the curriculum development officials and the teachers. This curriculum approach is consistent and pragmatic - one can start anywhere in the system - and teachers and experts can in fact replace the social partners in the curriculum development process. The clear advantage of this approach is that one can get started in modernising curricula even if the social partners and the companies are not yet ready - and this is absolutely still a realistic point of departure in Latvia in spite of the rhetoric. The drawback with this early presentation was that the role of the social partners, employers', their needs, etc. were not introduced as the main challenge from the very beginning. It has taken some time to reintroduce this issue.

A curriculum support infrastructure has been built up in Latvia as a result of the Phare vocational training programme. The specialists of the Centres for Vocational Education have participated in the curriculum development process. A substantial number of teachers now capable of curriculum development have been trained at the pilot and satellite schools. And the pilot schools and the Centres for Professional Education have been provided with office and communication equipment required for professional curriculum development. It is argued that the competencies acquired through Phare will be sustainable if the trained staff do not leave their current positions at schools and Centres for Professional Education.

The Challenge

In general the Phare vocational training reform programme in Latvia is considered a success. It has started a development process in the schools. The managers and teachers are dedicated to the outcome. Also the students are satisfied with the new teaching content and the learning methods introduced and the reputation of the whole programme is very good. This is a good point of departure.

The attitude of at least parts of the vocational training sector is changing from a closed and self-sufficient system to a more open and flexible one. But changes come slowly. As is the case in the Nordic countries the differences between the Baltic States are more visible than the similarities. Much could be learned from the Phare experiences of vocational training in Estonia and Lithuania. For instance, the output-based, employer-led skills analysis methodology applied in Estonia would seem to be complementary to the chosen approach in Latvia.

The Ministry of Education and Science Vocational Training Department must take on a stronger role in the overall vocational education and training system development configuration. This is a condition for sustaining the results achieved up till now. It will be impossible to implement the results to all schools if the ordinary ministerial structures are not totally involved and committed. The pilot schemes must be formally anchored up in the ordinary structures responsible for administering the vocational training system. A feeling of shared ownership towards the new procedures is necessary.

Efficient use of the investment in human resources undertaken through the Phare programme is of paramount importance. A relatively high number of the best vocational teachers have been trained and should be offered new jobs in the curricular support infrastructure or in vocational teacher training. It is also obvious to give development contracts to interested teachers to develop new teaching methods and to write teaching material based on their curriculum development work. A critical factor is the ability of the system to make clever and profitable use of the often brilliant 'change agents' developed through programmes like the Phare vocational training reform. It is not clear whether plans have been formulated for ways to make use of the well-trained and competent teachers at all levels of the vocational education and training system.

Another important factor to secure sustainability is the dissemination strategy through which pilot project results are distributed to those outside the project. Although many schools have been involved in the Latvian Phare vocational training programme compared to other countries, many losers are also created by the pilot school development model. What are the consequences of creating 'elite schools' and in which way have the other schools reacted? Are they simply left behind or have they been fully informed during the project? It is always difficult to make sensible use of the pilot project results of others - so the dissemination and broad implementation task will be a critical watershed.

All of the barriers and resistance avoided in the pilot phase encapsulation will be difficulties to be overcome when the new curriculum system is introduced full-scale. Minds should now be concentrated on how to overcome these barriers.

Lithuania

This case description of the vocational education and training system curriculum modernisation in Lithuania under the Phare vocational training reform programme is based on the results of the European Training Foundation questionnaire and on a number of written reports and other material. The vocational training curriculum reform approach in Lithuania might be called the *let a thousand flowers bloom* model. This has been a sensible and more or less deliberate choice made by Lithuania.

Findings

The implementation of the Phare programme has succeeded in involving and capturing the interest of key participants at all levels in Lithuania. There has been a great openness to accept change and a real commitment to work towards achieving the programme objectives. The Project Management Unit (PMU) and its long-term adviser (LTA) have been directly involved in the implementation of many of the programme activities. The Steering Committee (with good co-operation between the Vice-Ministers of the Ministries of Education and Science, and Labour) and key players in the reform programme highlight the advantages of this: the high profile of the reforms, and the motivating effect of leading by example. The main benefit will be the strengthening of national capacity to sustain the results of the programme into the extension phase and beyond.

Securing sustainability of innovative pilot school projects will always require deliberations about transfer mechanisms and systemic implementation procedures. Institutionalised procedures seem to be a necessary condition for success. In Lithuania quite a lot of building up of institutional capacity has taken place as a consequence of the Phare vocational training programme. A National Standards Group has been set up and has made a number of important proposals, e.g. to establish a National Curriculum, Assessment and Examination Council (NCAEC) in order to institutionalise respective functions. Another step was the setting up of a National Resource Centre to provide up-to-date vocational training materials, to manage the continuing development of learning materials, to facilitate future networking arrangements and to manage on-going training in the area. Also a new Learning Materials Resource Centre has been established which closely co-operates with the Methodological Centre for Vocational Training. Thus parts of the necessary infrastructure seem to be in place. The institutional capacity to administer a national vocational education and training system will of course require more than this.

The Vocational Education and Training System

The scope and the productivity of the Lithuanian experience have been impressive. The programme is driven by a pilot school approach with 24 schools and three adult training centres covering nine job families and supported by nine partnership schools from five EU countries. Considerable achievements have been made with regard to the development of the Lithuanian modular programmes for the new three and four year curricula which have been developed for nine occupational areas. A total of 750 modules were created by the 27 (28) pilot schools in a 12 month period. A modular catalogue with a descriptive annex has been printed and distributed to the pilot schools. The pilot schools have also developed 168 teaching and learning packages linked to the modules. Due to the breadth and openness of the Lithuanian implementation strategy this has been a massive learning experience for many actors in the vocational education and training system.

Originally, the programme envisaged nine groups of participating vocational training institutes, i.e. one group for each of the chosen families, all groups consisting of a pilot institute and two satellites. However, the decision was taken to allow each school to act as a pilot school. On the plus side, this meant that the participating schools felt that they were all equal and as such would receive the same amount of equipment. This raised the interest of the schools in the project and judging from the enthusiasm with which the teachers worked on the curriculum development, as well as from their investment of time and energy, it can certainly be said that they experienced ownership of the project.

The methodology adopted for the design of the didactic materials has been well thought out and includes a quality framework to review their contents, valuable for reviewing and updating. To ensure the sustainability and to facilitate the continuing development of learning materials to cover also the remaining modules, a National Consortium will be established. However, in the light of the need to review the curricula, the learning materials will also need to be reviewed.

Curriculum Content and Goals

The vocational training reform programme in Lithuania is a complex one, comprising many projects and sub-projects. The partnership project alone requires a great deal of management and coordination. In the results of the curriculum development project evidence of some fragmentation can be seen. This can be attributed to the use of the partnership schools model which, in this programme, is a crucial factor in the development process. Many players have been involved and the communication and monitoring from the PMU have not been strong enough. The approach of using partnership schools as a means of developing curricula has contributed to some of the inconsistencies now apparent in the curricula produced. Some of the participating partnership institutions do not appear to be suitable partners for the Lithuanian vocational schools - their learning programmes have not been vocational training programmes.

Occupational standards, including job profiles, student tests, criteria to ensure quality of vocational training provision etc, have not yet been developed within the project. The curricula were therefore produced without any reference to these. No methodologies for making qualification analysis or training needs assessments are being implemented. Future work on this issue should be facilitated by the work of the National Standards Group. In addition, the concept of the educational levels to be followed and their translation into the programmes to be designed have not been clearly understood by all curriculum developers involved in the project. The quality of curricula across the job families has been un-even in terms of their actual relevance to labour market needs.

There is, in principle, a concept of a core or base curriculum in the sense that part of the curriculum is defined jointly by national authorities (ministries) and regional/local bodies. Initial training courses are seen as a continuation of compulsory school and include the teaching of general subjects.

It was agreed that the curricula should be developed in a modular system. As Lithuania had no previous experience with modularity, a national curriculum framework and guidelines were developed which concentrated on the modularisation process itself and did not include the wider aspects of curricular reform: e.g. job profiles, standards, levels and assessment tools to measure competence. The curriculum framework thus concentrated on the technical/pedagogical issues, on the 'internal' side of the educational planning universe. This is understandable in the context of the need to get started with developing modules, but the strategy is too limited in scope. The same strategy has been applied in Latvia to demarcate the world of education from the world of work (in a situation where neither clear knowledge of labour market trends nor social partners are at hand), to be able to get off the ground and to get the ball rolling at least inside the education system.

Consultation with the social partners is problematic in Lithuania as the infrastructure is still developing. In an ideal world, in order to ensure relevance to the labour market, vocational curriculum development should start with the consultation of the social partners. However, in Lithuania social partners are not yet at a stage where they can play an active role in the development of job profiles and curricula as foundation for learning programmes. Since the development of the system of social partners had not yet reached the level of the systems in the EU countries, curricula, learning programmes and teaching and learning simply had to be developed within the project itself.

Designing the Curricula

New curricula for the occupation chosen were designed in a step by step approach. The first phase was to reorganise existing courses into modules. Each job family was provided with their own EU Short Term Curriculum Development Expert through the partnership programme. The PMU supplied an *Introduction to Curriculum Framework* to aid coherence and encourage standardisation between the curricula developed by the selected nine job families, while at the same time endeavouring to allow for maximum flexibility and autonomy within each job family.

Four qualification levels were established for modules and procedures for assembling modules into coherent learning programmes were worked out. The last phase was to evaluate the new curricula after one year. Work on new first-year draft curricula was completed on target to start their implementation in September 1996. Second-year curricula (and in some cases also third-year) have been developed and implemented as of 1st September 1997. Some 750 modules have been developed over a 12 month period. All modules are documented in a catalogue. In addition to the new modules, schools are provided with descriptive annexes. Two training packages, including manuals, have been produced for training of trainers.

This national curriculum model or curricular guidelines:

1 contains a definition of 'a module';

2 establishes the standard (same format) for modules;

3 includes instructions to support the reorganisation of courses into modular form;

4 explains how to use the framework/interpretations of standards;

5 provides a framework for assessment of standards;

6 contains a quality assurance framework.

Each curriculum was broken down into free standing student-centred units of learning and assessment which would be delivered in a fixed time frame (40 hours was recommended as the norm). Each module should follow a standard format.

The lack of agreed standards (levels of competence) meant that the most difficult issues had to be faced by all of the job families. The absence of 'agreed' levels combined with the fact that different EU partnership curriculum experts had their own interpretation of this complex area or advised the pilot schools to ignore this topic at present, resulted in confusion. This area, in particular, required all pilot schools to fully understand and incorporate these levels into their curriculum.

The Challenge

The lost inter-linkages between the world of work and the world of school is a challenge to the future of Lithuanian vocational education and training. The prevailing basic understanding of the mission, the *raison d´etre,* of vocational training institution, shared by school directors and vocational teachers, is that we are here to produce teaching. The societal function of the vocational school is still not clearly accepted as having the important role of being both a producer and a supplier of qualifications in high demand by Lithuanian companies. The vocational education and training system logic has only partly changed in the direction of increased responsiveness to the signals of companies. The Phare vocational training programme has the ambition to change the relations between schools and companies.

What is to be done in a situation where "social partnership" and 'tripartite co-operation' are merely words - although everywhere in the air - and not referring to really existing social categories? Lithuania might try to build up functional equivalents playing the same role in occupational and educational planning as in Western Europe. In some East Asian countries vocational training planning is based on academic and technological experts acting on behalf of the (weak) social partners and drawing up job profiles, defining learning targets and assessing the relevance of the outcomes of the qualification process. This strategy might give good results. Trying to establish a social partner configuration, as for instance in Denmark, would be impossible: here the structures are, in principle, more than 100 years old. They were born out of the industrial revolution - and are such structures necessarily still relevant in the post-industrial era? Another idea would be to take a closer look at the occupational profiles formulated in the CEDEFOP "Comparability Project" and try to modify and adapt these to conditions in Lithuania.

Another critical factor is the demoralisation of teachers which has taken place over the last 10 years. The salaries of teachers are low compared to other groups and one can hardly survive on only one full-time teacher job so vocational training teachers are extremely overworked. Working conditions at the vocational schools are insecure. It is necessary to professionalise the teacher profession if the ambitions of the Phare vocational training programme are to be achieved. Teachers fundamentally lack pedagogical qualifications just to manage their normal classroom instruction. More teacher training will be needed in the extension phase of the programme.

Teachers of vocational subjects have had no formal teacher training, they have been appointed based on their vocational skills. They are technical experts with some teaching experience, who have to become facilitators of learning and mentors of students, and only in the second place technical experts. Teachers of academic subjects are graduates in a certain subject who have also followed lectures on pedagogical, psychological and didactic subjects. Present day experience in Lithuania shows that graduates from university faculties often have to be trained in teaching when they get a job in a vocational school in Lithuania.

Lithuania has tried out different curriculum principles based on the national preferences of the different partners. This has given a considerable inspiration to the country and seems to have been a good idea. But now the time has come to raise the question of how to find the right balance between the many foreign blueprints, projects and models offered and the country's own conceptions, values and preferences. The decentralised/ partnership school approach has given a lot of foreign methodological inspiration to the country, but the different partnership schools often did not follow the national curriculum framework established. Lithuania should now give more attention to defining her own vocational training model.

Interestingly, the three Baltic States could learn a lot from each other's examples in curriculum development. The countries have applied different models and the Phare vocational training reform strategies are targeting different aspects of the curricular universe. Lithuania could learn from Estonia how to establish occupational profiles by asking the employers through questionnaires and interviews and how to relate the descriptions of modules to functional job analysis. It could learn from Latvia how to strike a balance in vocational training programmes between vocational elements and general subjects to make programmes attractive for young people. Indeed, Lithuania has as much to offer the other two countries as she has to learn.

Poland

Findings

Poland has profited from EU Phare assistance for the reform of vocational education and training since 1990. Major stakeholders on the basis of an analysis undertaken already during the first Phare programme agreed a strategic plan for vocational training reform. OECD reviews of labour market policy and of education policy have, in following years, both positively referred to this early analysis as a sound basis for policy making in vocational education. But subsequent governments have largely ignored its recommendations. The frequent change of governments has greatly contributed to a lack of continuity in educational reform policy.

Only after the publication of the results of the OECD International Illiteracy Study in 1995 did alarm bell start to ring. Polish literacy levels proved to be dramatically low compared to other countries. In 1998, the then Minister of Education presented an overall concept for a new education system, which is now gradually being introduced. The concept is largely unrelated to results and findings of work undertaken under Phare assistance programmes. Effectively it proposes to abandon a large segment of the existing vocational education and training system. However, in curricular terms it picked up elements of the curriculum reform discussion (especially in general education) that has already become established practice in most other countries and in most of the Phare pilot schools as well. Until now the many pilot schools that have participated in various Phare programmes have lived in uncertainty as to the effects of their participation.

Another factor that has contributed to a lack of national policy development has been the absence of national support infrastructures for vocational education. The limited capacities that existed after the closure of the Institute for Vocational Research in the early 1990s have been unable to fill the gap for policy-oriented research and development. This situation is also indicative of the low priority that vocational education reform has received in Poland.

As in other Central and Eastern European countries there has been little involvement of social partners in vocational education reform and few signals from the labour market have emanated that could give directions to schools for the contents of their programmes. As elsewhere, this has led to a situation where individual schools, directors and teachers, have been very much left on their own to find the appropriate adaptation to systemic changes in employment. As elsewhere, the only signals they were able to use initially were the educational aspirations of students, on the one hand, and external benchmarks introduced by vocational training consultants from abroad. For a long time, The Ministry of National Education, has not played an active role in the process. The PMU staff's view is that the Ministry was always following, far behind the pilot schools, if following at all.

The Vocational Education and Training System

The starting point for major curriculum modernisation in vocational education was the new classification of vocational qualifications published in 1993. This was based on 138 broad occupational profiles (down from 527 in 1982 and 241 in 1986). However, the institutional and personal capacity for the adaptation of existing curricula to these new profiles has been insufficient. According to the director of the BKKK, which has hosted most PMU of Phare vocational education reform programmes, most schools in Poland were (in 1997) still working on the basis of the old qualifications and curricula. The list of vocational qualifications is unrelated to the occupational classification system developed and maintained by the Ministry of Labour. The latter is based on ISCO 1988.

The legal framework for curriculum reform was only created in 1995 with the amended bill on education. This bill defined two principal mechanisms for curriculum reform:

- base or core curricula that would regulate 80% of the total curriculum;
- national standards, or examination requirements, determined by the state administration.

Curricula developed by schools have to be centrally approved and be listed in a national inventory. Schools have 20% free space to develop curricula according to local needs and in consultation with the local educational authorities (Kuratoria).

The Improve Programme

This review only covered the last Phare vocational training reform programme, known as *Improve*. At the time of the interviews an external evaluation of the programme was underway, of which the results could not be included. *Improve* was designed to further develop the curricula elaborated under a previous Phare 'Upgrading and Training in Poland (UPET)' programme and to complement the TERM and MOVE programmes. The MOVE programme was a follow-up of the 1990 vocational training reform programme. As a result of all these programmes a large number of pilot schools and teachers have become acquainted with modern conceptions of vocational education.

The programme covered 27 occupational profiles at the skilled worker and technician level from a limited number of economic sectors. The profiles came from the 1993 occupational qualification list. Curriculum Development Groups were based at four recently established Regional Vocational Education Centres and implemented in 35 pilot schools from those regions (Warsaw, Lodz, Krakow and Torun). Another nine schools took part as satellite schools. The programme finished in 1998. Work was guided by a Steering Committee consisting of representatives of the Ministries of Education, Labour and Economy and of the Confederation of Polish employers.

Curriculum Content and Goals

The general process of curriculum development is rather complicated with a multitude of different actors involved at various levels. The decision making process is still very centralised at the ministerial level though individual schoolteachers play a role in the development process. The curriculum system is also still strongly input oriented, with central definitions of core curricula, teaching plans, lesson tables and approval of school teaching programmes. Qualifications of teachers are also strictly defined.

However, largely fostered by the subsequent Phare programmes, a certain development towards output controlled curricula is taking place, based on the new vocational qualification list and through the definition of occupational profiles and standards. The list is defined - in consultation with other ministries - by the Ministry of Education who also defines the minimum requirements for the core curricula and approves all school curricula. The Ministry takes the decisions about the organisation of the school year, the teaching plans, and the rules for examination and appoints itself all members of curriculum development commissions.

A small team at the Institute for Educational Research co-ordinates the work of the various curriculum commissions appointed by the Ministry and provides professional support. The Institute also prepares the programme documentation and undertakes research on general issues of vocational education and training. It was envisaged that by the end of 1998 the core curricula for all profiles from the new qualification list would be ready and that sample programme documentation for teaching programmes would have been elaborated. This ambitious goal could not be achieved.

School authorities (local and regional) can introduce new types of vocational subjects in accordance with the needs of the labour market and in co-ordination with the employment offices. The scope of these activities is not known.

The centrally defined core curricula lay down 80% of the curriculum content. Schoolteachers can fill up the remaining space according to the needs of the local situation but need final approval by their Kuratoria. However, apart from the Phare and some bilaterally supported assistance programmes, teachers do not receive any professional or financial support for doing so and it may therefore be assumed that little initiative is actually taking place. Regional Education Councils have been established, consisting of teachers, parents, and students, representatives of teacher trade unions and regional administrative bodies and, employment offices to assist in identifying needs for training as a basis for school level initiatives. But this system is hardly operational and only functions in a few exceptional regions.

For the *Improve* programme, no occupational standards were available at the start and so far those standards developed by the pilot schools have no relevance at all at the national level. There is no mechanism that would allow for the evaluation of locally developed standards and for their endorsement at national level. Similarly, no national guidelines exist that could frame occupation specific or school based curricula or regulate their evaluation and national endorsement.

Designing the Curricula

The curriculum approach chosen for the *Improve* programme is based on the principle of gradual specialisation following a common base of initial education during which broad-based knowledge and skills can be acquired.

It also follows a modular design, distinguishing between general and unit (part) modules. The modules used are coherent and independent units of training with precisely defined objectives. They enable a) measurement of knowledge and skills of students, b) each module to be used as such but also as an integrated part of more comprehensive programmes, and c) transformation and adaptation to the needs of particular targets groups.

The amount of general education remains relatively high and amounts to 40-50%, depending on the level of education. General education continues to be given through separate subjects. The vocational specific curricula contents aim at the development of technical knowledge and skills. They also foresee innovations in teaching and learning approaches, away from the traditional frontal classroom approach towards self-learning, either based on teacher assignments or on self-organised learning. The curricula for initial vocational education are supposed to provide the basis for continuous education and also to promote self-employment and enterpreneurship.

In particular the new curricula are expected to enable graduates to be better prepared for the requirements of the employment system. They would:

- be better prepared for working with new technologies;
- possess social and communication skills to work in teams;

- be able to perform a greater variety of jobs (from product planning to evaluation) and be more flexible;
- be more independent and able to take bigger responsibilities;
- be able to upgrade and learn on a continuous basis in order to be able to cope with constant changes in technology and work organisation.

However, it should be stressed that there are no indications as yet that the intentions of the approach have been realised in practice. Nevertheless, teachers and students react very positively to the changes introduced.

As in all other Phare programmes, the curriculum development component has been combined with teacher training and equipment provision. No international school partnerships have been foreseen, though.

The Challenge

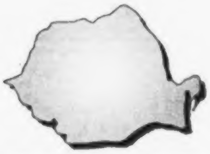
The biggest institutional outcome of the programme has been the strengthening of the four regional practical training centres as curriculum development centres. It remains to be seen whether these - and other centres - will be able to maintain and further develop this role. If so, they may be able to fill the gap within the existing vocational training support structures that have so long existed between individual innovative schools and the national system at large.

None of the Phare programmes, however, has been able to establish at the national level mechanisms that would allow making use of experiences of pilot schools and securing sustainability. Decisions on that matter are still pending. All that PMUs could do in this respect is disseminate experiences through the publication of newsletters and the organisation of conferences.

The educational reform now under way in Poland foresees a radically different role for vocational education as compared to the present one. It proposes to postpone initial vocational education until the age of 16 and after termination of a common 3 years secondary general school (gymnasium) for all primary school leavers. On the other hand it creates vocational education at different levels (including higher education) and foresees new pathways between general and vocational education at the different levels. Thus, there will be no dead-end routes as was the case with the former basic vocational schools. The new structure will necessarily lead to a redefinition of curricula for vocational education, including a redefinition of curriculum contents to be provided at secondary general schools (Gymnasium) and subsequent forms of vocational education.

There will be at least four aspects that now need to be carefully addressed:

- what will be the impact of the education structural reform for the vocational curricula developed under Phare and how can these be integrated in the new types of schools that are proposed?
- the reform concept says little about the expected role of the regional centres, nor about the need for a national support structure, nor about a reform of teacher training;
- what will be the role of headteachers and teachers from pilot schools who have acquired valuable experiences through their participation in the Phare programmes?
- how will the new concept be implemented and how can use be made of vocational training modernisation experiences resulting from Phare programmes?



Romania

Findings

There is a real reform for the first time. There are clear objectives which are strictly followed. Actions are tightly controlled and supervised. The partners are very good.

(school director, spring 1998)

The actual aims of the Phare vocational training reform programme in Romania are summarised in a work paper *Policy Aspects and Strategy* - Bucharest, Oct. 1997:

- to accomplish vocational training at the levels of the countries in the European Union;
- to follow the demands of a democratic society;
- to be in compliance with the labour market evolution in Romania;
- to facilitate economic restructuring.

The above objectives required as targets:

1 to analyse the macroeconomics development trends of the Romanian economy;

2 forecast future trends in labour demand, at national and regional level;

3 analyse the vocational education and training system's output and compare the level of qualifications with that in other European countries;

4 identify gaps and discrepancies between the demand and supply sides;

5 propose a coherent set of corrective actions for the vocational education and training system to harmonize with labour supply and demand.

The sophistication and clarity of the documentation issued by the PMU is remarkable. Equally remarkable is the commitment and depth of understanding of the issues demonstrated by the PMU leaders. These factors have been a powerful force in transferring both motivation and understanding to the implementers of the curriculum in the field despite very late delivery of curriculum material, textbooks and equipment. The latter was only arriving in the schools at the beginning of 1998, when the programme had, in principle, already terminated. This indicates three problems: attempting to deliver a 5 - 10 year programme in two years; complex procurement procedures; poor choice of certain external consultants. The programme has survived thanks to the appointment of a new PMU Director and a new local curriculum adviser but as a consequence a prospective systemic reform has intertwined itself with the base of the previous system.

A success for the programme has been the appointment of zonal coordinators to establish' social partnership'. Indeed, in the main, the enterprise representatives present saw themselves as direct beneficiaries of the programme in all its aspects: new equipment, motivated students, renewed involvement in training following the collapse of the historic factory/vocational school relation. The problems for the social partners are associated not with relations with the schools and the curriculum reform *but with lack of progress in local and national labour market planning and economic strategy.*

The Vocational Education and Training System

The Phare vocational training reform programme received an allocation of 25 million ECU (1994 to 1998). The wider objective of the programme was to support national education reforms aiming at preparing young people more accurately for the labour market. The immediate objective was to implement practical reform measures in a nationally spread group of pilot and demonstration schools. The programme had the following components:

- a national action and policy framework;
- activities in 75 schools where teachers redesign the content of initial training, prepare new learning and teaching materials;
- modernised teaching methods
- the development of school-based assessment and certification;
- supporting activities (management development, teacher training, exchange visits with foreign institutions etc).

Phare vocational training reform largely follows the pattern in the other eight Phare countries, in that its rationale emphasises:

- initial skill provision;
- a learner/student outcome based approach to pedagogy;
- the reduction of specialist areas;
- an integrated and vocational preparation approach to the first years;
- the introduction of core or key skills;
- a shift from an input to an output philosophy of evaluation;
- a closer relationship between education and enterprise.

There was not a centralised national framework covering curriculum reform. However the Phare vocational training curriculum philosophy is connected to the reform project for pre-university education – co-financed by the World Bank and the Romanian government. Comparability at national level is achieved by close relations among the national boards of Curriculum Development, Management, Teacher Training, Assessment and Evaluation. These represent the components of the Educational Reform Project in Pre-University Education.

Curriculum Content and Goals

The curriculum is predominantly concerned with producing skills and knowledge and the appropriate attitudes for developing them in real life. The latter is assured mainly through cross curricular themes but also through civics, entrepreneurship and vocational guidance. Teacher training is oriented to the supervision of 'self learning' and the 'self organisation' of the student. Of course, the process of changing teaching styles has been slow, even under the Phare programme, (especially because new equipment took a long time to arrive in the schools). Nevertheless the curriculum aims at a level of competency for students where they can perform autonomously in the work place.

The evidence suggests that within the Phare vocational training programme, continuing training supplements initial training rather than initial training providing a base for long-term development. However, the curriculum developers, on the ground, have attempted to take a holistic view.

Designing the Curricula

The experimental reform process has been a comprehensive one breaking down the curriculum into: 60% technical/occupational; 10% interpersonal; 10% organisational; 20% general culture.

The motivation to change has been centred on the disappearance of hard industry and the development of new technologies and services. For large family occupations the first year is generalised. Specialisation is for the third and fourth years and general training in the second.

The occupational profiles selected were: mechanics, electrics, electrotechnics, electronics, computers and computer related industries, mining exploitation, oil and gas exploitation, industrial chemistry, building and construction, agriculture, food processing, wood processing, light industry, transportation, communication and audiovisual, forestry, water and environmental protection, commerce and services, tourism and catering, hygiene and beauty services.

There were three skill levels selected:

- qualified worker;
- technician (post high school);
- senior technician.

There is a concept of a core curriculum, defined by curriculum developers from the pilot schools within the frame of core capacities related to training standards. It is compulsory for students, it does provide a basis for reskilling.

General education provides a functional background to vocational content, thus: languages, both foreign and mother, dealing with communication skills; science and computer classes are applied; *entrepreneurship* is included in the curriculum as is vocational guidance and counselling; there are cross curricular themes and optional modules which allow integration of general education into specialised vocational content as well as possibilities of upgrading within a particular trade.

Training standards, curriculum development and trainers training are organised by mixed teams of vocational teachers and social partners. The total process involves: the ministries, the PMU, the social partners, the chambers of commerce and industry, craft chambers, regional authorities, directors of schools, teachers.

The Challenge

The future priorities of the Ministry of Education are:

- to continue the structural reform at all levels of schooling (apprentice centres, technical high schools, adult training centres within the vocational training clusters),in order to reach a comprehensive model of development;
- to finalise the new certification system;
- to strengthen the links between initial and continuing training;

- to monitor the social integration of the graduates within the changing market given that the Phare vocational training programme itself has lacked a coherent policy towards bringing together initial and further training;
- to introduce curricular changes for the initial training of teachers and to monitor the activities of selected vocational training trainers;
- to get a clearer picture of 'implantation' as clearly at all levels (including the classroom); transition is only partial.

With the possibility that the programme '*becomes history*' (despite the expenditure of 25 million ECU) what is it possible to do, in 1999 and post millennium, to' bolt in' at least some of the outcomes?

Two major factors have been built into the future programme: firstly a study on *Labour Market Trends and related indications on the manpower provision for the vocational training system.* The intention of the study is to provide an informed base to carry forward, from the Phare vocational training programme, a more systemic reconstruction piloted by a new vocational centre within the Ministry of Education.

The second initiative, touched on above, relates to the principles and practice, following curriculum development, of assessment, certification and quality assurance. The development of a technical and administrative framework for the latter (initially for the outcomes of the Phare vocational training programme) would (help) establish the currency and credibility of the reformed system with all the intended users within Romania. It would also, if carefully designed, enable Romania to have transparency of certification, corresponding with European procedural norms (EN 45013:1989), with partner countries and EU Member States. A start has been made with the creation of the National Assessment and Examination Service (NAES) and an overarching framework for vocational training certification. The latter is a prime political priority of the present Romanian government.

Slovak Republic

Findings

The interaction of general education with the vocational training system creates a problem. With students undertaking up to 80% of their studies in general education in the first two years of a four year programme, it is difficult for those with a stronger interest in practice to progress to the following two years. Additionally it will require more than two years basic vocational training to introduce complex occupations. Qualifications in the field of repair and maintenance or in the modern craft sector need students with sophisticated knowledge, skills and a professional behaviour. In a system which is oriented mainly towards theoretical subjects they cannot acquire the appropriate competencies. The integration of modules, with these latter objectives, into the old system will be difficult.

In the mid to long term, it would be necessary to create more commitment from small and medium sized enterprises (SME). An increased interest in training in these companies would strengthen the political goal to establish a market oriented vocational training system.

The desired outcome is individual practical competencies for collective access to the labour market via organised and approved professional training combined with general education. The current situation in vocational training can only be improved by a strengthening the relationship between curricula and the world of work, by intensifying the discussion on approaches to learning and by increasing cooperation between schools and companies.

In this unpromising situation, the school, with its limited financial resources, cannot give access to and specific training for production and services with appropriate technology.

However, if the school is to be the focus of change then further teacher training is critical. It needs to focus on the new type of competency based vocational training and new learning methods. In view of the curriculum development circle, evaluation of the effects on students (in the light of the changing work environment) is essential.

The Vocational Education and Training System

The duration of compulsory education in Slovak republic is ten years of compulsory school attendance, 9 years of primary school and 1 year of secondary school. As for secondary education there are 3 main types of schools: gymnasiums, secondary technical schools and secondary vocational schools. Applicants to secondary schools are accepted on the basic of exams. The content of exams is the responsibility of schools.

Gymnasia provide general education primarily aimed at preparing students for university studies. At the end of study students take final exams (maturita and national certificate). They offer 4 or 8 years study. The curriculum gives the students a choice in specialisation (humanities, science, general).

Secondary technical schools usually provide a complete secondary education which takes 4 years study and requires a final exam (maturita and national certificate). They aim to develop the practical application of skills and knowledge. The schools prepare the students for technical work in the chosen specialisation. Those who have completed the 4-year training programme with a final exam can continue their education at higher professional schools or universities. The students can choose from about 250 branches. About 40% of teaching time is devoted to general education. Practical and theoretical lessons often overlap, there is a lot of emphasis on acquiring skills in laboratories and other workshops held at schools. Schools work together with companies on curricula amendments and during internship training in companies.

Secondary vocational schools usually offer secondary vocational education in 2 to 3-year studies with a final exam and apprenticeship certificate. They can also offer a four year secondary vocational education at the end of which the students take a final exam (maturita), which is recognised at other types of secondary schools and allows students to continue their studies at higher professional schools or universities. Practical training represents about 50% of teaching time and aims at the acquisition of manual or manipulation skills. The school graduates can immediately look for a job in the labour market. At secondary vocational schools students can receive qualifications in about 340 branches. Schools provide theoretical and more practical training, which can sometimes take place directly in companies.

There are also special vocational education schools that provide training to young people with disabilities.

Post-maturita studies, which used to be the dominant form of post-secondary education, are currently being phased out. The study offered regular full-time courses or part-time courses for those who had completed general studies at a secondary school. The full-time programmes took one, two or three years.

The system of vocational training management still does not support co-operation of vocational schools with enterprises and so there is no systematic collaboration between managing authorities of education and industry on national level. In apprenticeship training which has a high share of practical training, the contact with enterprises is more intensive. However, there is no system to encourage enterprises to cooperate in the education process.

Co-operation between vocational schools and enterprises occurs most frequently at local level. However, in most cases it is neither systematic, nor does it deal with all the necessary matters. It is mostly concentrated on the organisation of practical training of students in enterprises and sometimes on providing consultations in relation to curricula and specialisation. This situation is very differentiated in individual regions and sectors. Proposals for the improvement of this co-operation have been included in the evaluation of the Phare vocational training reform programme.

The curricula lead to qualifications for specific jobs rather than occupational fields. The modular approach adopted is based on the SCOTVEC* model of curriculum design. However there is an element of broad based education and each occupational cluster has compulsory general education classes. To ensure quality a number of measures have been taken with the aim of facilitating transition from school to work. Efforts have also been made to delay the age at which young people have to specialise. The identification of standards is carried out both within the vocational training system itself and by labour market institutions.

* *Scottish Vocational Education Council (non the Scottish Qualifications Authority)*

Curriculum Content and Goals

Curricula start with general education and a broad based introduction to the specific vocational subject which becomes increasingly more specialised with options and work practice available for the students.

The concept of a core curriculum assures a number of compulsory lessons and a set of basic knowledge and skills for all students. For the first two years the percentage of general education can be as high as 80%, for the following two years, 20%. General education is provided through separate subjects. In the vocation related part of the curriculum, learning goals explicitly aim to develop technical knowledge and skills and also personal aptitudes, i.e. individual behaviour. The new curricula analyse shifts in job structures given the tendency towards more teamwork and an increased emphasis on social skills and an increased need to perform a greater variety of tasks.

The curricula are related to occupational profiles, including recommendations on:

- title of occupation;
- length of training;
- training entrance requirements;
- job description, including requirements on knowledge, practical skills, personal competencies;
- basic training plan with number of lessons;
- requirements for examination.

It could not be said that these goals are fully realised. The new curricula attempt to achieve the development of students' competencies in a self-steered learning process to perform well in a given occupation.

This type of vocational training concentrates on school-based science with a combination of preparation for future studies at university for the best students and for jobs in industry for the weak ones. It is an individual failure to finish studies with the certificate of apprenticeship and not with the maturita. The 'best' in this approach is the student with the highest level of theoretical knowledge.

Designing the Curricula

The State Institute for Vocational Education (SIOV) is the co-ordinating pedagogical advisory, education, research, development, information, professional and control authority for the secondary vocational education establishments and the secondary vocational schools.

Standards and occupational profiles are obligatory; regulations specify occupational profiles at national level. National guidelines are defined before the curriculum development process starts; occupational profiles are designed parallel to curriculum development.

Work has started on the development of occupational profiles in close co-operation between SIOV and schools and involving social partners. The role of the social partners is, however, purely advisory. The Ministry of Labour, Social Affairs and Family intends to issue occupational standards before the end of 1998. These will serve as the basis for the subsequent development of vocational training standards. The Ministry of Labour and some of social partners are involved in the development of occupational profiles. However, the actual process of development is not really transparent. Occupational clusters seem to be selected on the basis of economic sectors and the connection to the labour market has as a performance indicator the success of schools in their special field. It is difficult to identify and respond to new occupational fields with this school related strategy.

The National Curriculum Development Working Group is led by SIOV. Each occupational cluster is represented in this national working group by expert representatives from the pilot schools. Involved in the whole process of curriculum development system are:

- Ministry of Education;
- Ministry of Labour, Social Affairs and the Family;
- vocational training institutions;
- employers and employers' associations;
- school principals and teachers;
- university representatives on national working groups;
- the unions at local level and technical experts, consulted through working groups.

At local level curriculum development groups are made up teachers from the school which is piloting the particular curricular area. In some local groups there are also employers, chambers of commerce, local labour offices and unions. The results are reported to the relevant expert in the National Curriculum Development Working Group.

The Challenge

The new curricula encourage students to learn autonomously and by assignment. Initial training is considered as starting point for life-long learning. In general there is an increased emphasis on practical components in the curriculum.

Vocational training is provided mostly at schools and in attached practical workshops, only sometimes at enterprises. The engagement of the latter depends on the particular situation. Some schools are more innovative and creative than others. There is no regulation for the duration of practical training. Experts from some companies sometimes support curriculum development in the design of curricula or assessment.

There seems to be only a casual transfer of requirements from the work place and the labour process to school training and learning. There is a need to strengthen the practical part of vocational training with workshop experience for teachers, and further training for instructors including the workshop labour process. School managers could initiate these changes.

Further teacher training is very important. This should focus on the new types of labour process, of competency based vocational training and new learning methods under the guidance of trained colleagues. This further education and training should enable them not only to introduce the new modular approach but also to design a suitably modified certification system more in line with developing working processes.

Slovenia

Findings

Educational administrators, university specialists, and the vocational training teachers in the schools have internalised the changes in demand from the labour market and accepted the need for change in the vocational education and training-system. The new economic sector of small and medium sized companies and the growing demand for services and maintenance provision has resulted in the design of new occupations. Teachers in the pilot schools are committed to developing new ways of teaching and learning according to renewed or new curricula.

The transfer of outcomes from the pilot schools towards the rest of the system and the introduction of vocational training reform in other schools are underway.

The new vocational education and training system in Slovenia has quality criteria but faces problems, such as weak commitment from companies and inappropriately qualified trainers (e.g. lacking pedagogic skills). Given the latter, the gearing of curricula towards the world of labour is difficult and the design of the huge number of different curricula required for all professions requires a lot of effort, time and expense.

The Vocational Education and Training System

Modernisation of curricula at all levels and in all fields of education is part of the current overall process of education reform in Slovenia.

The development of new curricula for new pilot vocational training programmes has been strongly supported by the Phare vocational training reform programme. Working groups comprising representatives from the Chamber of Commerce and Industry, the Chamber of Crafts, trade unions, the National Employment Office and schools, and the 16 pilot schools selected, were heavily and constantly involved in the preparation of curricula, the accompanying materials and other preparatory activities. At the beginning, the main emphasis was put on the development of four new educational programme types:

- post-secondary vocational programmes;
- dual system programmes;
- vocational courses; and,
- master craftsmen, foremen and managerial preparatory courses and examinations.

Reorganisation of curricula started with eight new required by the new small and medium sized companies in the production and service sectors. The approach was designed in co-operation and with help from neighbouring northern countries. Only relatively un-complex occupations were chosen. Problems are anticipated with more complex occupations not only from the design point of view but also in the context of an underdeveloped labour market. The Slovenian experts regard the design of a new system during a period rapid change as difficult. Certain tools are missing: to plan vocational training and labour market needs; to identify qualifications from the analysis of the labour process; to transcribe occupational skills into curricula.

By the end of 1998, 19 vocational training programmes** had been prepared in the frame of the Phare vocational training reform programme and additional 36 programmes had been renewed or newly prepared outside the Phare programme***. All 2-year lower vocational training programmes (13) were renewed and pupils were able to enrol in these programmes in the 1998/99 academic year. They now also have a greater choice thanks to the newly prepared 3-year dual-system vocational training programmes. In the near future, more emphasis will be given to the renewal of the 4-year secondary technical and professional programmes and technical vocational programmes. By the end of 1998, 659 knowledge and exam catalogues were prepared.

However, a large number of the existing vocational and technical-professional programmes (approximately 50) still have to be reviewed and modernised.

Curriculum Content and Goals

The main objectives for the implementation of new educational programmes and learning plans are as follows:

- goal oriented progress approach;
- general definition of programmes and openness to modifications;
- equal opportunities for education;
- compatibility with European vocational education and training programmes;
- preference for general and applied contents should be reflected in programmes, and a balance between different fields and disciplines should be guaranteed;
- programmes should include selected content-related branches;
- vertical and horizontal compatibility of the programmes;
- performance of the programmes should be based on combinations of various forms;
- testing should be adjusted to the goals defined in the programmes;
- qualification of performers and fulfilment of other conditions should be provided before general implementation;
- implementation of the programmes should be carried out gradually, taking into consideration the attainment of the determined goals.

The Slovenian approach to curriculum design is based on producing graduates with broad knowledge and skills in an occupational sub sector, who are able and interested to start professional work immediately including while training. No experience with graduates is yet available. The only exception are post-secondary vocational colleges graduates where first analyses showed the appropriateness of programmes. The organisation of continuing vocational training at high-tech levels is on the agenda but not yet discussed.

** *8 dual system programmes (secondary vocational programmes), 5 vocational course programmes, 5 post-secondary vocational programmes and 1 secondary technical programme.*

*** *All together 55 vocational, technical and professional programmes were newly prepared or renewed by November 1998 (13 lower vocational programmes, 19 dual system programmes, 2 school-based secondary vocational programmes, 5 secondary technical programmes, 5 vocational course programmes, 1 vocational technical programme and 10 post-secondary vocational programmes.*

Overall what is required is:

- current analyses of the labour market needs and a careful study on future developments; better acquaintance with requests and needs of employers and development strategies of individual regions;
- more systematic and specific organisation and regulation of occupational areas and special professions;
- careful analysis of the world of labour in the different economic sectors;
- transfer of skill needs from the world of labour into the world of learning;
- detailed organisation of the curriculum design process with stronger involvement of social partners;
- close co-operation among the vocational training partners;
- practically and theoretically trained teachers with experience in companies;
- an orientation in companies on working tasks and in schools on integrated learning fields from the occupational areas.

Designing the Curricula

In order to enforce and speed up the review of curricula, the National Curriculum Council was appointed in November 1995 as an expert body with the main tasks of preparing a methodological background for the review of curricula, establishing the system of review, monitoring the work of curricula commissions, approving the reviewed programmes, and disseminating information on curricula reviews and modernisation to the public. The Curriculum Commission for Vocational Education and Training co-ordinates the review of curricula in vocational training and proposes changes in curricula for adoption. It is composed of representatives from the social partners, schools and experts. Employers' representatives (chambers) collaborate in the work of sub-commissions and working bodies reviewing and modernising curricula for vocational subjects. The Curriculum Commission is assisted intensively by the Centre for Vocational Education and Training. Following approval by the Curriculum Commission, all reviewed and new vocational educational programmes have to be approved by the Council for Vocational and Professional Education. The Council for Vocational and Professional Education defines standards of knowledge in vocational training, approves the new and modernised vocational training programmes and proposes them to the Minister of Education and Sport.

The design of curricula requires market analysis in occupational sectors, the participation of companies in curriculum development, and the dissemination of pilot-school curricula to the system as a whole. This makes it a step by step procedure, starting with working groups involving the chambers, regional representatives, the Curriculum Commission and the Council for Vocational Education and Training. Social partners participate in all main expert and working bodies in the vocational training field at national and regional levels. Their participation is essential but requires complex logistics and organisation. However, this way of designing curricula has advantages in that it is more readily accepted by the different groups involved. The result should be short and clear information for all. However, there are disadvantages in the possible domination of vocational training teachers and their bias towards traditional content and pedagogy together with tedious bureaucracy.

To reinforce the links between vocational training and labour market, the whole process of reviewing and creating new curricula for vocational programmes was put in the framework of the so-called nomenclature of occupations. The nomenclature of occupations is a list of valid public (state) occupational and vocational standards. The main idea behind the nomenclature procedure is to help design vocational programmes related to occupational demands. Methodological guidelines for the nomenclature were prepared by experts and in cooperation with different institutions. The whole process of implementing the nomenclature is co-ordinated by the Centre for Vocational Education and Training.

The Challenge

The newly introduced forms of vocational education and training in Slovenia have advantages in:

- combining real work with theory;
- the orientation of individuals towards the labour process;
- a better integration into the world of labour and into the labour market through work-experience in companies;
- a better integration of the individual into society by his or her status as a professional which implies acquiring competencies of a high standard.

The disadvantages are:

- high costs (particularly for the state) for long and complex vocational training;
- problems in training for some narrowly defined production jobs;
- excessively high requirements in theory and practice for less able students, particularly in case of general subjects.

The main challenges for the further modernisation of vocational training curricula are also:

- an emphasis on content modifications relating to the new skills and competencies identified by employers, such as problem solving orientation, ability to respond to new work situations, project approaches, etc.;
- different forms of integration of work and learning have to be implemented in schools, training centres and companies themselves in order to better prepare trainees for newly emerging work situations;
- modernisation of initial and continuing training of teachers of professional and vocational subjects, as well as to the training of trainers (supervisors). In Slovenia, a need for a separate system of teacher training in vocational education has been established. More emphasis should also be given particularly on the analysis of education and training needs of vocational training teachers (knowledge, skills). Special attention has to be paid to introducing new pedagogic approaches and methods.

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